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DRAIPER'S

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Easy, Profitable and Pleasant

WAYS TO MAKE MONEY

A Reliable Manual for Making

MANY USEFUL AND VALUABLE ARTICLES

IN CONSTANT DEMAND.



NEW YORK:

DICK & FITZGERALD, PUBLISHERS.

1840

Arthur M. Everts.

PROF. DRAIPER'S

600

EASY, PROFITABLE, AND PLEASANT

WAYS TO MAKE MONEY,

A RELIABLE COMPENDIUM OF

VALUABLE RECEIPTS,

FOR MAKING

ARTICLES IN CONSTANT DEMAND,

AND OF READY SALE.

CAREFULLY SELECTED FROM PRIVATE FORMULE, AND THE BEST
ESTABLISHED AUTHORITIES,

BY EDMUND S. DRAIPER,

Professor of Analytical Chemistry, etc.



NEW YORK:

DICK & FITZGERALD, PUBLISHERS.

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TO THE PURCHASER.

THE PREPARATION of this publication—however unassuming its proportions may appear—has been a labor of considerable investigation, care, and time, which has been conscientiously performed. The book, although small, is no clap-trap, catch-penny affair, containing only chimerical suppositions or experimental deductions that have no positive or permanent value; but it is the result of careful tests and practical applications. A large proportion of the formulæ are from original sources, of established worth, and are offered to the public in the present cheap, convenient, and popular form for the first time. A goodly number of the articles named under various heads, have been, and are still, the sources of many handsome incomes, and even snug fortunes could be indicated that have been mainly derived from the manufacture and sale of matters herein presented, while the information whereby to produce them, has been sold, in numerous instances hitherto, only under the bond of secrecy, and at high prices.

A multitude of *so-called* "Valuable Secrets" might have been added to the contents of this book, had mere bulk been the object desired; but all that would not bear a thorough investigation have been rigidly excluded—those interested in the future success and popularity of the publication preferring to give quality rather than quantity, depending upon a wide-

TO THE PURCHASER.

spread and appreciative recognition of its intrinsic merit for large sales and consequent liberal remuneration.

Such information can be found herein that any person of average intelligence and a few dollars of capital, can manufacture valuable articles that are in constant demand at all times—articles that are really needed and easily disposed of—articles, too, that will yield a large profit to the producer whether male or female. In addition to this, their manufacture and sale will be highly instructive, pleasant, and respectable for all persons.

This collection of Receipts is undoubtedly the most valuable and comprehensive that has ever been offered to the public in so cheap a form. It embraces a large variety of subjects; so that no one who purchases the book can have cause to be dissatisfied. The small price asked for it places it within the reach of every one, and not to possess a copy of it would seem to indicate an indifference to the progress of modern discovery, and to information that may always be made available for lucrative employment.

Persons of either sex with spare time on their hands which they would be glad to devote to profitable use, will find, by a careful perusal of these pages, much that will afford them what they desire; and those regularly engaged in manufacturing can certainly make selections to meet their business requirements; while in families the household expenses may be considerably reduced, by its members making articles that are constantly used by them, at one-third to one-half less than the usual cost if purchased from dealers.

In conclusion, the publishers hope that those who shall be benefited by it, will accord this book their hearty approval and commend it to others.

PROF. DRAIPER'S
SIX HUNDRED EASY WAYS
TO MAKE MONEY.

GENERAL RECEIPTS:

Non-poisonous Silvering Solution.—Take Nitrate Silver 2 drachms, Distilled Water $4\frac{1}{2}$ oz. Dissolve, and add Sal Ammoniac 1 drachm, Hyposulphite Soda and Precipitated Chalk each 4 drachms. Mix.

NOTE.—All surfaces to be plated must be thoroughly cleansed and polished before applying the Solution.

Silvering Powder, for Silver Plating Brass, Copper, German Silver, &c.—Cyanide of Potassium 12 parts, Nitrate Silver 6 parts, Prepared Chalk 30 parts. Powder the cyanide and silver separately, then mix with the chalk. The articles to be plated must be perfectly clean and polished, Spirits of Hartshorn being the best thing for cleaning. Moisten the powder with clean water and apply by means of a soft brush or piece of woolen cloth. After the article is sufficiently plated it must be carefully washed with warm water and soap. The powder is poisonous and must be entirely removed from the surface plated, leaving only a coating of pure silver, which is, of course, harmless.

Bronzing Liquid, for Bronzing Copper Medals, Figures, Instruments, &c.—Sal Ammoniac 1 drachm, Oxalic Acid, 15 grains, Vinegar 1 pint. Mix. After well cleaning the article to be bronzed, warm it gently, and brush it over with the liquid, using only a small quantity at a time. When rubbed dry, repeat the application until the desired tint is obtained.

Browning or Bronzing Liquid for Gun Barrels.—Aqua Fortis and Sweet Spirits Nitre each half an ounce, Sulphate Copper 2 ounces, Water 30 ounces, Tincture Muriate Iron 1 ounce. Mix.

Superior Goldsmiths' Polishing Powder.—Take 7 parts of Sesquioxide of Iron, 3 parts Sal Ammoniac. Mix thoroughly.

NOTE.—The above gold and silver polishing powder has long been a guarded secret among the gold-workers of Germany who have always obtained a high price for the manufactured article. Although a very simple composition, it is undeniably excellent. It is easily and cheaply prepared by dissolving Iron in Hydrochloric Acid, and treating the Protochloride of Iron thus formed with Liquid Ammonia, as long as a precipitate is obtained. Collect the precipitate on a filter, and dry it (without washing out) at such a temperature that the adhering sal ammoniac shall not be volatilized. The protoxide of iron precipitated at first becomes changed into sesquioxide.

Gilders' Composition for Frames.—Take 10 pounds best Black Glue and melt in the usual manner, but with very little water. It should be at least four times as thick as the glue used for general purposes. Then take 6 pounds of common Resin and pulverize fine; add Linseed Oil or Resin Oil, to form a thick paste with the dust. Dissolve with heat, allow it to cool to about 212° ; then add the hot glue. Combine the entire mixture thoroughly. Have sifted Whiting prepared, and mix with the composition as flour is used in making bread. Then form the mass into convenient cakes, and allow to cool. This composition may be used at any time by the application of steam or heat.

NOTE.—The proportions of ingredients as put down in the foregoing receipt are not arbitrary, although advisable. Some manufacturers prefer using boiled linseed oil, while others prefer resin oil. Nearly every one has some little change in the formula; but, as we have given it, it will be found reliable. The compound is a very useful one for many other purposes than that mentioned, and is now made public property we believe for the first time.

Bronze for Medals, Small Castings, etc.—Copper 95 parts, Tin 4 parts. Melt together.

Bronze for Gilding.—Copper 14 parts, Zinc 6 parts, Tin 4 parts.

Bronze, Ancient.—Copper 100 parts, Tin 7 parts, Lead 7 parts.

Liquid Amalgam for Silvering Globes, &c.—Pure Lead and Grain Tin each 1 ounce. Melt in a clean ladle and immediately add 1 ounce Bismuth. Skim off the dross, remove the ladle from the fire, and before the metal sets add 1 ounce Quicksilver. Stir the compound well, avoiding the fumes evolved.

Amalgam for Varnishing Figures, &c.—Melt 2 oz. Grain Tin with half an ounce Bismuth, and add half an ounce Quicksilver. When cold grind it with white of egg and apply to the figure.

Preparation for Cleaning Very Dirty Brass, &c.—Rub some Bichromate Potassa fine, pour over it about twice its bulk of Sulphuric Acid, and mix this with an equal quantity of Water. Apply to the dirty metal, wash off with water, and polish with rotten stone.

Composition for Cleaning Brass, &c.—Rotten Stone 8 ounces, Sulphuric Acid 2 ounces, Olive Oil and Water each 1½ ounces. Mix.

Wash for Cleaning Silver and Britannia Ware. Take one pound of Common Hard Soap, 3 tablespoonfuls of Spirits of Turpentine, and half a tumblerful of Water. Allow the soap to dissolve; then boil ten minutes, and before it cools add six tablespoonfuls of Hartshorn. Make a suds of this preparation, and wash the article to be cleaned with it.

Gold Lacquer.—To a pint of Strong Alcohol, add as much Gamboge as will give it a bright yellow color, then add 12 ounces Seed Lac in fine powder and set it in a warm place until dissolved,

Fusible Metals.—I. Take Bismuth 8 lbs., Lead 5 lbs., Tin 3 lbs. Melt together. This alloy fuses below 212°.

II. Take Bismuth 2 lbs., Lead 5 lbs., Tin 3 lbs. Melt. This alloy fuses in boiling water.

III. Take Lead 3 lbs., Tin 2 lbs., Bismuth 5 lbs. Melt. Fusible at 197°.

NOTE.—In each of the three foregoing receipts melt the tin and lead first, then remove from the fire and add the bismuth.

Method of Tinning, Copper, Brass, and Iron, in the cold and without Apparatus.—Carefully clean the article to be tinned, seeing that it is free of oxide and grease-spots. Chemical or mechanical means may be employed in cleaning. Then take the best Zinc Powder, which may be readily obtained by melting zinc and pouring it into water slowly in a thin stream, when it can be easily pulverized after solidification. It should be about as fine as writing sand. Next have ready a solution of Protochloride of Tin containing about 5 to 10 per cent. of Tin Salt, to which as much pulverized Cream of Tartar must be added as will go on the point of a knife. The object to be tinned may now be moistened with the tin solution, after which it should be rubbed hard with the zinc powder. The tinning appears at once. The tin salt is decomposed by the zinc, metallic tin being deposited. When the article tinned is polished brass or copper, it appears as beautiful as if silvered, and retains its lustre for a long time. This process is an excellent one for preserving iron, steel, copper, and brass instruments and apparatus from rust.

Soluble Glass.—Melt 1½ lbs. of White Sand free from alumina and carbonate of lime, 1 lb. of Carbonate of Potash containing a very small proportion of Chloride of Potassium, and one-tenth of a pound of Powdered Charcoal. Mix these well, and melt in a Large Crucible until the mass is liquid and homogeneous. For a large quantity, use 45 pounds of Sand, 80 pounds of Potash, and 3 pounds of Charcoal. The carbonate of potash may be substituted by double its weight of Crystalized Carbonate of Soda.

Stain for Twisted Gun Barrels.—Take of Tincture of Sesquichloride of Iron half an ounce, Corrosive Sublimate one drachm, Sulphate of Copper half a drachm, Nitric Acid one drachm to one drachm and a half, Spirits of Wine six drachms, Water eight ounces. Dissolve the corrosive sublimate in the spirits of wine, then add the solution to the other ingredients, and let the whole stand for a month or six weeks, when it will be ready for use.

The barrels to be stained should first be carefully cleaned with lime, and, this being removed, the browning mixture is laid on with a sponge five or six times a day, till the color is dark enough to suit the fancy. Once or twice a day a scratch-brush should be used to remove the rough oxide, and allow the acid to get a deeper bite. When it is considered that enough has been done, boiling water must be poured over the barrels for several minutes, and, while hot, rub them with flannel, and finish with a leather and a little beeswax and turpentine.

To Cut or Bore Glass.—Any hard steel tooth will cut glass with great facility when kept wet with camphor dissolved in turpentine. A drill bow may be used, or even the hand alone. A hole may be readily enlarged by a round file. The ragged edges of glass vessels may also be thus easily smoothed by a flat file. Flat window glass can readily be sawed with a watch-spring saw by the aid of this solution. In short, the most brittle glass can be wrought almost as easily as brass, by the use of cutting tools kept constantly wet with camphorated oil of turpentine.

NOTE.—Dr. G. Lunge uses Dilute Sulphuric Acid instead of Oil Turpentine to moisten the drilling instruments, and states that it not only increases their efficacy in drilling glass, but the tools and files are less rapidly destroyed.

To Mend Cracked Porcelain Dishes.—Porcelain dishes which have become cracked, may be rendered water-tight again, by drying them completely in a warm place, after which a Solution of Water-glass is to be poured in and allowed to stand over night. It is then poured off and the adherent film permitted to dry slowly.

Wood's Fusible Metal.—An alloy composed of 8 parts Lead, 15 parts Bismuth, 4 parts Tin, and 3 parts Cadmium, possesses the following properties:—It is permanently silver white, and has a brilliant metallic lustre; it is not so hard but that it may be obtained in thin leaves or flexible plates; it may be used as a solder whenever the metals so soldered are not likely to be exposed to heat; it softens between 131° and 140° Fahrenheit, and becomes perfectly fluid. Zinc, tin, copper, and brass, may also be soldered, with this metal, with the greatest ease, under water to which a little Muriatic Acid has been added. This alloy is so easily melted, that it may be fused on a piece of paper over a spirit lamp.

Soluble Glass for Floors.—Instead of the old-fashioned method of using wax for polishing floors, etc., soluble glass is now employed to great advantage. For this purpose the floor is first well cleaned, and then the cracks well filled up with a cement of Water-glass and Powdered Chalk or Gypsum. Afterward, a water-glass of 60° to 65° , of the thickness of syrup, is applied by means of a stiff brush. Any desired color may be imparted to the floor in a second coat of the water-glass, and additional coats are to be given until the requisite polish is obtained. A still higher finish may be given by pummicing off the last layer, and then putting on a coating of Oil.

An Alloy that will Adhere to Iron and Steel.—It is often desirable to combine steel or iron with brass, and thus obviate the necessity of using bolts or screws for fastening them. The unequal expansion of the metals is the great obstacle to such a combination, as it overcomes the adhesion of the surfaces and thus prevents a permanent union. The following alloy, however, adheres firmly to iron and steel, and can be recommended:—3 parts of Tin, $39\frac{1}{2}$ parts of Copper, and $7\frac{1}{2}$ parts of Zinc.

Putty for Metals.—Starch and Chloride Zinc form a good putty for metals. It soon hardens and will last for a long time.

Silvering Cast Iron.—A bath is prepared by dissolving $3\frac{1}{2}$ drachms of Nitrate Silver in 7 ounces Water, and adding 7 drachms of Cyanide Potassium: this solution is to be poured into 21 ounces of Water, wherein $3\frac{1}{2}$ drachms of Common Salt have been previously dissolved. The cast iron intended to be silvered by this solution should, after having been well cleaned, be placed for a few minutes, in a bath of Dilute Nitre Acid, just previous to being placed in the silvering fluid.

Gold Test.—A good test for gold or silver is a piece of Lunar Caustic, fixed to a pointed piece of wood or a quill. Lightly wet the metal to be tested, and rub it gently with the caustic. If gold or silver the mark will be faint, but if an inferior metal, it will be quite black. Jewelers who purchase old gold often use this test.

Paste for Cleaning Brass.—Rotton Stone $4\frac{1}{2}$ lbs., Oxalic Acid (dissolved in the water) 2 ounces, Soft Soap 8 ounces, Sweet Oil 8 ounces, Boiling Water 1 lb., Spirits Turpentine 1 ounce. Mix.

Hard Silver Solder.—Take 3 parts Sterling Silver and 1 part Brass Wire. Melt in crucible.

Soft Silver Solder.—Take 2 parts Fine Silver and 1 part Brass Wire. Melt.

White Solder.—Take 10 parts Tin, 6 parts copper, 4 parts Brass. Melt together.

Soft Solder.—5 parts Tin, 3 parts Lead, 3 parts Bismuth and 3 parts Mercury. This composition melts at 122° Fahr.

Method of Preserving Cut Flowers.—Put a tablespoonful of Powdered Charcoal into the water destined to receive the flowers, and, carefully placing the latter so that their lower extremities are submerged in the liquid. This method will never fail to produce the most satisfactory results, if ordinary care be taken, and flowers treated thus will retain their freshness and beauty at least as long as in their natural condition.

To Bleach Sponges.—Select the softest and cleanest sponges, wash and squeeze them out repeatedly in water, then plunge them in a mixture of 1 part Muriatic Acid and 6 parts Water, in order to separate all calcerous matter. This immersion is for one hour, after which they are carefully washed in clean water, and then plunged in a second bath of Muriatic Acid prepared as at first, except there is added 6 per cent. of Hyposulphite of Soda dissolved in a little water. The sponges are allowed to remain in this bath for 24 hours. A final washing with water removes the chemical substances, and the sponge acquires by this method a whiteness more or less resembling snow.

Friction Matches.—8 parts (by weight) Gum Arabic, 5 parts (something less), Phosphorus, 7 parts Nitre, 8 parts Powdered Peroxide of Manganese. Make a mucilage of the gum with water, then add the manganese, then the phosphorus, and heat them to about 130° Fahrenheit. When the phosphorus is melted add the nitre, and stir the whole thoroughly until the mass becomes a uniform paste. The matches, the ends of which have been previously dipped in Sulphur, are then dipped in the composition and dried in the air. Friction papers for the pocket, or matches for parlor and bedroom use, may be made by adding some Gum Benzoin to the mucilage, which will give an agreeable odor when the matches are ignited.

Composition for Welding Steel.—Borax 1½ pounds, Sal Ammoniac half a pound, Pruss. Potassa one-fourth pound, Rosin 1 ounce, Alcohol and Water each 4 ounces. Pulverize the borax, etc., fine, and slowly boil all the ingredients together in an iron kettle until the mass becomes a thick paste. Use as borax.

Refined Oil.—Oil for fine mechanism is prepared by putting Zinc or Lead Shavings, in equal parts, into pure Olive Oil, and leaving it in a cool place till the oil becomes colorless.

Glazing for Linen.—To every quart of Starch add a teaspoonful of Salt, and one of White Soap scraped fine. Boil the starch (after adding hot water) until it is of the proper thickness.

A Cheap Galvanic Battery.—Break the stems of six Tobacco Pipes close to the bowls, and close the apertures at the bottom of each bowl with Sealing-wax. Take six Small Toy Tumblers, an inch or less in height; put in each a cylinder of Amalgamated Zinc, and place in each pipe bowl a thin slip of Platinum Foil, half an inch wide, and connect it with the zinc of the next cell with Platinum Wire. Fill the pipe-bowls with Nitric Acid, and the tumblers with dilute Sulphuric Acid, and the battery is complete. In case the platinum cannot be obtained, copper may be substituted. This battery is in imitation of the famous battery made by Faraday out of a common thimble, and is capable of decomposing water and igniting charcoal.

Another Cheap Battery.—Take a cylindrical vessel, and put into it another smaller vessel made of porous porcelain; fill the inner one with Diluted Sulphuric Acid, and the space between the two with Sulphate of Copper (if you desire to plate an article with copper); if not, a Solution of the Salt of Gold, Silver, etc., according to what you wish it to be. Put a Slip of Zinc in the sulphuric acid, and attach a Copper Wire to it, and the other end to the medal or article you wish to plate, and immerse that in the other solution. Your battery is now perfect. If you want the metal to be very thick, you must put a few solid crystals of the metal in the solution; where you do not want it to come in contact, you must touch it with a little grease; if you want to take the copper off the article. you must spread it over with a slight varnish

Anti-Rust Varnish for Iron and Steel.—Take Resin 2 parts, Sandarac 3 parts, Gum Shellac 1 part, Spts. of Turpentine 2 parts, and Rectified Alcohol 3 parts. Pound the first three ingredients, digest them by a regular heat until they are melted, and add the turpentine very gradually. After complete solution has taken place, add the alcohol, and filter through fine cloth or thick filtering-paper. The varnish should be kept in well-stoppered bottles,

Tracing Paper.—A beautiful, transparent, colorless article of tracing paper, much prized by architectural and other draughtsmen, engravers, etc., is prepared as follows:—First make a Clear Varnish from Demarara Resin; then place the sheets of paper flatwise upon each other, and spread the varnish evenly over the top sheet by means of a camel's-hair or other fine brush, until the paper appears perfectly colorless, without, however, the varnish thereon being visible. Then remove the first sheet from the pile and hang it up to dry by one edge. Continue in the same manner with the other sheets. After being thoroughly dried, paper thus prepared is capable of being written upon either with chalk, a pencil, or a steel pen. It retains its colorless transparency and does not become yellowed by time, as is generally the case with that prepared in any other way.

Tracing Paper.—Saturate the paper well with a mixture made of 1 part Balsam Fir and 3 parts Spirits Turpentine, and dry by hanging it up.

Paper Parchment.—This is made by simply immersing any paper of even fibre in a Concentrated Solution of Chloride of Zinc.

Fire Kindler.—Take 2 quarts of Tar and 6 pounds of Common Rosin; melt them; let the mass cool somewhat; then mix with it as much Pine Saw-dust, containing a small proportion of Charcoal bruised tolerably fine, as can be worked into it. Spread the mixture out upon a board while hot, to the thickness of about an inch, and, with an old knife proceed to score it into squares an inch and a half each way, and when cold break up into convenient cakes. You will thus have a very cheap and reliable kindling that will serve a large household for a year. A single square will ignite easily from a match, and burn with a strong blaze long enough to start any coal or wood that is fit to burn.

A Cheap Filter to Purify Cistern Water.—Place on the perforated bottom of a box, a piece of flannel, and on this

some coarsely powdered Charcoal, then coarse River Sand, and cover the whole with Sand Stone broken into small pieces.

To Remove Rust from Iron or Steel.—Cover with Sweet Oil well rubbed on. In 48 hours use Unslacked Lime powdered very fine. Rub it till the rust disappears. To prevent rust, mix with Fat Oil Varnish four-fifths of well rectified Spirits of Turpentine. Apply the varnish by means of a sponge. Articles varnished in this manner will retain their brilliancy, and never contract any spots of rust. It may be applied to copper philosophical instruments, etc.

A Simple and Safe Way of Cleaning Delicately Painted Surfaces.—Provide a plate with a quantity of the Best Whiting, and a vessel containing Clean Warm Water. Take a Soft Sponge and dip it into the water; then squeeze it out, dip it in to the whiting, apply it to the painted surface, where a little gentle rubbing will quickly remove any dirt or grease. After which, wash the part rubbed with clean water, wiping it dry with a Soft Chamois Skin. Paint thus cleaned will look as well as when first laid on, and the most delicate colors will not be impaired. It is far better than using soap, and does not require more than half the time and labor.

To Deodorize Carbolic Acid.—Take Crystalized Carbolic Acid and mix with it twice its weight of Gum Camphor; then add a small proportion of Whiting to the compound. In this form it is valuable as a disinfectant and as a protection to furs against moths.

Oreide, or French Gold Composition.—Spanish Copper 12 parts, Silver 6 parts, Gold 10 parts. Mix, and melt in a crucible.

Byzant Silver.—Melt 4 pounds Pure Copper with 3 oz. of Tin. This closely resembles and rings like sterling silver, and is valuable for mountings, etc., where pure silver would be too expensive to apply.

To Silver Glass (*Bothe's Process.*)—1. The reducing liquid. Into 48 ounces of Boiling Water throw 48 grains of Rochelle Salt, and add gradually a solution made of 1 drachm of Nitrate of Silver in 1 ounce of Water. Keep it boiling for ten minutes, and filter when cold.

2. Dissolve 1 drachm Nitrate of Silver in 1 ounce Distilled Water, and add Liquid Ammonia till the precipitated oxide is just redissolved; then add 12 ounces of Water, and filter.

A mixture of equal volumes of these two liquids coats glass, in the course of ten minutes, with a bright, shining layer of silver.

Fine Bronze Metal.—Copper $27\frac{1}{2}$ parts, Zinc 12 parts, Tin 8 parts. Melt together.

Gun Metal.—Copper 18 parts, Tin 2 parts. Melt.

To Give a Crystalline Surface to Tin Foil or Sheet Tin.—Take of Chloride Tin 2 parts, Hot Water 4 parts, Muriatic Acid 2 parts, Nitric Acid 1 part. Mix. The tin foil is dipped in this mixture and left until the crystals appear. Small crystals are obtained when the solution is applied cold—large when used hot. The most beautiful specimens of this kind are produced with varnishes colored with the aniline dyes.

A First Rate Stove Polish.—Grind any non-combustible Black Pigment with a sufficient quantity of Silicate of Potash, or "Liquid Glass," to make it of a proper consistency for application. When the polish becomes dry, it will be found to be smooth and shining, wholly without odor, and very durable, while it will not soil the whitest cambric if applied to it. The materials are easily obtained, inexpensive, readily mixed and applied, and the article will amply repay one for the small amount of trouble and outlay it involves.

To Clean Black Cloth.—Dissolve 1 oz. Bicarbonate Ammonia in 1 quart of Warm Water. With this rub the cloth, using a piece of Flannel or Black Cloth for the purpose. After the application of this solution, clean the cloth well with clear water; dry and press it, brushing the cloth from time to time in the direction of the fibre.

Gunpowder.—Nitre 75 parts, Charcoal $12\frac{1}{2}$ parts, Sulphur $12\frac{1}{2}$ parts. Mix.

White Gunpowder.—Yellow Prussiate of Potassa 28 parts, Crushed Sugar 23 parts, Chlorate Potassa 49 parts. Pulverize each article separately, and then mix with the hands or a wooden spatula. Powder made in this way has twice the strength of ordinary gunpowder.

Best Red Sealing Wax.—Take Best Shellac 4 pounds, Venice Turpentine 1 pound, English Vermillion 2 pounds. Mix and melt together.

Black Sealing Wax.—Take 4 ounces of Beeswax, and half an ounce of Burgundy Pitch; melt them together, and then add $1\frac{1}{2}$ ounces of Ivory Black, ground very fine and dried.

To Stain Brass Black.—Brass may be stained black with a liquid containing 2 parts Arsenious Acid, 4 parts Hydrochloric Acid, and 1 part Sulphuric Acid. Use 80 parts of Water.

To Give a Permanent Black Color to Zinc.—Zinc may be given a fine black color by first cleaning its surface with Sand and Sulphuric Acid, and afterward immersing it for a moment in a solution composed of 4 parts each of Sulphate of Nickel and Ammonia, and 40 parts of Water, acidulated with 1 part of Sulphuric Acid, washing and drying it. The black coating adheres firmly, and becomes a bronze color under the burnisher.

To Make Paint Adhere Well to Zinc.—A difficulty is often experienced in causing oil colors to adhere to sheet zinc. Their adhesion is insured by the employment of a mordant, so to speak, compounded as follows:—1 part Chloride of Copper, 1 of Nitrate of Copper, and 1 of Sal Ammoniac, are to be dissolved in 64 parts of Water, to which must be added 1 part Commercial Hydrochloric Acid. The sheets of zinc are to be brushed over with this liquid, which gives them a deep black color. In the course of from 12 to 24 hours they become dry, and to their then dirty grey surface a coat of any oil color will firmly affix itself,

Sheets of Zinc prepared in this way, and afterward painted, have been found to entirely withstand all the atmospheric changes of winter and summer.

Barometrical or Weather Glass.—Nitrate Potassa and Sal Ammoniac each half a drachm, Camphor 2 drachms, Alcohol 2 ounces. Mix. Place this composition in a bottle 8 or 10 inches long, and about three-quarters of an inch in diameter, and cover the mouth with a piece of bladder perforated with small holes.

By the above the following changes may be noted:—As a sign of fair weather, the sediment of white flakes will settle near the bottom of the tube, while the liquid will remain transparent. As a sign of rain, the matter will rise to the surface.

Aromatic Vinegar.—Strongest Acetic Acid 1 pound, Camphor 1 ounce. Dissolve, and add 1 ounce each Oil Lavender, Oil Lemon, and Oil Cloves.

To Make Paper Waterproof.—Dissolve 8 ounces of Alum and $3\frac{1}{2}$ ounces of White Soap in 4 pints of Water. In another vessel dissolve 2 ounces of Gum Arabic and 4 ounces of Glue in 4 pints of Water. Mix the two solutions and heat them over the fire. Then immerse the paper, sheet by sheet, in the hot liquid, and hang them up edgewise to dry, or pass them between heated cylinders.

To Take Ink Out of Linen.—Melt Pure Tallow, and cover the ink-spot with it while hot. After washing in the usual manner, the stain will generally be gone. If, however, some of the blemish remains, a second application of this simple process will effectually remove it, and without injuring the linen. This method has been found to be decidedly the best among many others employed for the purpose mentioned, by a laundry company of great celebrity in New York.

To Clean Gold and Silver Lace.—Sew the Lace in a Clean Linen Cloth, boil in a pint of Salt Water and 2 ounces of Soap, and then wash it in Cold Water. If the lace be tarnished, apply a little Warm Spirits of Wine to the tarnished part.

To Remove Spots from Silk.—Take the Shin-bone of an Ox or Horse, and, after depriving it of fleshy matter, burn it to charcoal, and reduce it to powder. Mix this powder with Fuller's Earth and a little Castile Soap; wet it with Clean, Soft Water. Rub some of this mixture on the spots to be removed, and then dry in the sun or by a gentle fire. Then rub it hard with a Wet Brush, and, when it is dry again, the spot or stain will be gone.

To Dissolve Shellac Quickly.—Put White Shellac with some Naphtha or Spirits of Wine into a wide-mouthed bottle, and fix the bottle in a lathe. By keeping it continually but slowly revolving, it will dissolve in about six hours. White and brown shellac mixed, make a liquid glue impervious to moisture, while the former alone makes a good cement for mending glass or porcelain.

To Soften Ivory.—Slice half a pound of Mandrake, and put with it 1 quart of the Best Vinegar. Put the ivory into this mixture, and stand the vessel containing it in a warm place for 48 hours, and you will be able to bend the ivory to suit.

Starch Polish.—Take sufficient Common Potato or Wheat Starch to make a pint of Starch when boiled with the necessary quantity of Water. Then add half a drachm of Spermaciti, and half a drachm of Clarified Wax, when the mixture will be ready after stirring it with a stick. Use as you would ordinary starch, but have the iron as hot as possible. By this means a brilliant and durable polish will be secured.

Grafting Wax.—Take Beeswax 2 parts, Tallow 2 parts, Resin 10 parts. Melt these together in a moderately deep Iron Vessel with a lid to it. After the melting, stir the mixture until it becomes uniform in appearance. When the wax is to be used, and the scions are to be grafted, have the mixture kept warm (not hot), and apply with a small wooden paddle. See that every part is carefully covered with the wax, so that the air is entirely excluded. No bandages are required with this wax.

Red Sealing Wax.—A good quality of Sealing Wax can be made cheaply by carefully fusing a mixture composed of 48 parts of Shellac, 19 parts of Venice Turpentine, and 1 part of Balsam Peru, to which must be added, afterward, 32 parts of Finely Levigated Cinnabar, and some Sulphate of Lime.

A still cheaper kind of wax may be obtained by substituting Red Lead for the vermillion, and there is much Common Rosin that will run into thin drops when melted, which can be used in place of the Venice turpentine.

Black Sealing Wax is produced by melting together 60 parts of Shellac, 10 parts of Venice Turpentine, and 8 parts of Finely Levigated Ivory Black.

Yellow, green, and other colored Wax, may be obtained by substituting Fine Chomic and other Coloring Agents for those already named.

Valuable Receipt for Gold Plating.—Take half a pennyweight of Fine Gold, and dissolve it in half an ounce of the Strongest Aqua Regia, in a Bottle with a Glass Stopper. As soon as the gold is dissolved it will settle more or less at the bottom of the bottle. Then add 2 ounces of FFF Aqua Ammonia, and shake it up well. Next, form a Funnel of White Blotting Paper, having the opening at the small end of the funnel not larger than the thickness of a common knitting needle, through which pass the solution. When all the liquid has passed through the funnel, take the paper (*being careful not to detach the yellow substance deposited upon it*) and immerse it in a Solution composed of quarter of an ounce of Cyanide of Potash and 1 pint of Pure Rain Water. After the paper has remained in this solution for about five minutes, take it out and the solution is ready for use.

When you wish to plate anything, have the article cleaned well with soap and water, and, after being dried, immerse it in the solution, keeping it, while immersed, in contact with a Narrow Strip of Bright Zinc placed at the bottom of the solution. The process of plating begins immediately, and ten to fifteen minutes is a sufficient time to plate any article well.

Cook's Silver Solution.—Cut into small pieces a Silver Half Dollar, and put it into an Earthen Vessel with 1 ounce of Nitric Acid. Put the vessel in Warm Water, uncovered, until the mixture dissolves. Then add 1 gill of Water and 2 teaspoonfuls of Fine Salt, and let it settle. Drain off, and repeat adding Water to the sediment until the acid taste is all out of the water. Finally, add about 1 quart of water to the sediment, and 8 scruples Cyanide of Potassa, and the solution is ready. Place at the bottom of the vessel containing the solution, a Piece of Zinc about 2 inches long, 1 inch wide, and one-eighth of an inch in thickness. After cleaning the article to be plated, immerse it in the solution about one or two minutes, letting it rest on the zinc. Wipe off with dry cloth and repeat the process once. Polish with Soft Buckskin. Every repetition of the immersion increases the thickness of the silver-plating.

Watch Makers' and Jewelers' Fire Gilding.—Have the watch-case or other article to be plated thoroughly washed in any Ordinary Alkaline Solution, and then wiped dry and rubbed bright. Then cover it over with Quicksilver, which may be done with a small strip of Brass. After applying the quicksilver, rub it over gently and evenly with a Jewelers' Brush. Then coat it thoroughly with Gold and Quicksilver mixed, and brush over as before. Then heat it gradually over a Charcoal Fire for 10 or 15 minutes, which will force the gold into the pores of the silver or other metal to be plated. Then place the article so prepared on a Bed of Live Coals, and burn off the quicksilver, brushing occasionally to keep the coating even, afterward washing thoroughly in Strong Beer or Vinegar. Finally, color the gold plating any desired karat by either of the subjoined preparations:

GOLD COLORING PREPARATION 1.—Take 1 ounce and 8 pennyweights of Red Chalk, 9 pennyweights of White Vitriol, 9 pennyweights of Cooper's Isinglass, 9 pennyweights of Verdigris, $3\frac{1}{2}$ pennyweights of Borax, and 4 ounces of Beeswax. Mix them together by means of heat, and, while warm, dip the plated article

into it, and then hold the article over a Blaze until ail burns off. Then place it into a Solution of Water and Red Tartar. When cool the process may be repeated if the color is not deep enough.

GOLD COLORING PREPARATION 2.—Take $1\frac{1}{2}$ ounces Sulphur, half an ounce of Salt, $1\frac{1}{4}$ ounces of Alum, 2 pennyweights of Curcuma. Mix these together, and boil in a Copper Vessel filled with Water. Stir frequently with a Wooden Stick, and, when it boils, immerse the plated article in the liquid, and let it remain until the desired color is reached, which will occur in from 10 to 20 minutes. In lifting the article out of the boiling mixture, be careful always to use a Clean Wooden Stick.

The New Method of Silvering Glass.—The four solutions required for this process, and given below, require some care in their first preparation, but once made they are always ready, and can be used with great rapidity and certainty for depositing a lustrous, mirror-like surface of silver on a piece of glass of any desired shape or curvature.

SOLUTION 1 is prepared by dissolving 1 part, by weight, of Nitrate of Silver in 10 parts of Distilled Water.

SOLUTION 2 consists of an Aqueous Solution of Pure Ammonia, having a density of 13° Cartier.

SOLUTION 3 consists of 4 parts of Pure Caustic Soda in 100 parts of Distilled Water.

SOLUTION 4 is made by dissolving $12\frac{1}{2}$ parts of the Best White Loaf Sugar in 100 parts of Distilled Water. To this add 1 part, by measure, of Nitric Acid; boil for 20 minutes, in order to alter the molecular arrangement of the particles of the sugar, and then add Water to increase the volume to 500 parts, by measure, and, finally, add 50 parts of Alcohol.

These solutions will remain unchanged for a long time. When required for use, prepare an Argentiferous Liquid by pouring into a Flask 12 parts, by measure, of the Silver Solution, No. 1; 8 parts, by measure, of the Ammoniacal Solution, No. 2; then 20 parts of the Soda Solution, No. 3; and, lastly, add 60 parts of Distilled Water, in order to make up the volume to 100.

If these proportions have been properly observed, the liquid so prepared will be perfectly clear, but will be rendered turbid by the smallest addition of nitrate of silver solution. It must be allowed to remain without disturbance for 24 hours, to permit the floating particles to settle. The clear liquid decanted from the sediment will then be ready for use.

The Surface of the Glass to be silvered must be well cleaned with a Tuft of Cotton and a few drops of Nitric Acid, and then washed with Distilled Water. Drain it, and support it on the surface of the Silvering Bath, which is composed of the above-described argentiferous liquid, with the addition of one-tenth or one-twelfth, by volume, of the Sugar Solution, No. 4. The surface to be silvered, should, by preference, be at the upper part of the liquid, that the silver may be deposited on it from below upward. There are two advantages in this—first, the deposit is finer and more even: and, second, there is no danger of floating particles of dust settling on the surface.

It is, however, scarcely necessary to say that silver will be deposited upon every part of the glass which is under the surface of the liquid, as well as upon the sides and bottom of the vessel; so that, as a matter of economy, as little as possible of the back of the glass should be exposed to the action of the liquid. The action seems to be somewhat of a photographic character, being more rapid in the light than in darkness. Under the influence of diffused light the liquid becomes yellow, then brown, and in a few minutes the whole of the exposed surface of the glass will be covered with a fine deposit of silver.

In about a quarter of an hour the thickness of the metallic coating will be sufficient to bear the subsequent operations without injury. It must then be washed with plenty of Water, and rested by one corner on several thicknesses of Blotting Paper to dry spontaneously. The surface will now be covered with a thin whitish veil, which may be readily removed by gentle friction with Chamois Leather. It may afterward be polished with Jewelers' Rouge, when a perfectly brilliant surface will be produced.

To Purify Water in Cisterns, Casks, &c.—For each hogshead of water contained in the cistern, butt, or cask, sprinkle into it a tablespoonful of Pulverized Alum, stirring the water at the same time. After a few hours the water will be found to be clear and clean, all impurities being precipitated to the bottom.

Safety Matches Without Phosphorus.—Take of Chloride of Potash 4 to 6 parts, Bichromate of Potash 2 parts, Ferric Oxide 2 parts, Strong Glue 3 parts. Mix thoroughly, and use in the usual manner. Matches made by this method will not ignite on sand-paper, or by ordinary means, but require a surface especially prepared for them, as follows:—

Sulphide of Antimony 20 parts, Bichromate of Potash, 2 to 4 parts, Oxide of Iron, Lead, or Manganese, 4 to 6 parts, Glass Powder 2 parts, Strong Glue or Gum 2 to 3 parts. This preparation is spread like paint, in a warm condition, on suitable paper, which is fastened on the boxes containing the matches.

To Make Chloroform.—Take of Chlorinated Lime 4 pounds, Rectified Spirit half a pint, Chloride Calcim broken into pieces 1 drachm. Put the chlorinated lime, first mixed with the water, into a Retort, and add the spirit to them, so that the mixture may fill only the third part of the retort. Then heat in a Sand-bath, and, as soon as ebullition begins, withdraw the heat as quickly as possible, lest the retort should be broken by the sudden increase of heat. Let the liquid distil into the Receiver so long that there may be nothing which subsides, the heat being applied if necessary. To the Distilled Liquid add 1 quart of Water, and shake them well together. Carefully separate the heavier portion which subsides, and add the chloride to it, and frequently shake them for one hour. Lastly, let the liquid distil again from a Glass Retort into a Glass Receiver.

Collodion, or Liquid Cuticle.—This may be made by dissolving 56 grains of Gun Cotton, prepared according to the formula hereinafter given, and well dried, in a mixture of $3\frac{1}{2}$ fluid ounces of Strong Ether, and 1 fluid ounce of Strong Alcohol.

To Prepare Gun Cotton.—Take of Cotton free from impurities half a Troy ounce, Finely Powdered Nitrate of Potassa 10 Troy ounces, Sulphuric Acid $15\frac{1}{2}$ Troy ounces. Add the acid to the nitrate potassa in a Glass or Porcelain Vessel, and stir them together until they are uniformly mixed. When the temperature of the mixture is below 122° , add the cotton, and, by means of stout Glass Rods, imbue it thoroughly with the mixture. Then cover the vessel closely, and allow it to stand 24 hours. Next transfer the cotton to a Larger Vessel, and wash it, first with Cold Water until the washings cease to have an acid taste, and then with Boiling Water. Press it as dry as possible with the hands, and wash with Strong Alcohol to remove the water, and, finally press dry with the hand. Gun cotton, it is generally understood, possesses very powerful (much superior to ordinary gunpowder) explosive qualities, and great care must be taken with it to guard against accidents. Gun cotton is also employed in the production of collodion, or liquid cuticle.

To Make Colored Bottle-wax.—Beef Tallow 2 pounds, Common Resin 8 pounds, Red Lead 2 pounds. Melt and mix well together. When other colors are desired, different coloring mediums may be substituted for the red lead.

CEMENTS AND OTHER ADHESIVE PREPARATIONS.

Dalton's Celebrated Diamond Cement.—Best of Isinglass 6 oz., Gum Mastic and Olibanum each 2 ounces, Pure Water 9 ounces, Rectified Spirits Wine 12 ounces. Dissolve the isinglass in the water (in a water-bath); then stir in the mastic previously dissolved in the spirits wine, and, lastly, stir in the olibanum in the state of an impalpable powder.

Diamond Cement, so useful for repairing broken china, ornaments, jewelry, nicknacks, etc., is made as follows:—Take half an ounce of Gum Ammoniac and a tablespoonful of Water; melt them together till they form a milky fluid. Then take one ounce of Isinglass and six wineglassfuls of Water; boil together till the quantity is reduced one-half; then add one wineglassful and a half of Strong Spirits of Wine. Boil this mixture for five minutes, and then strain it through muslin, adding afterward, while hot, the ammoniacal fluid formerly made. Finally, add half an ounce of Mastic Resin dissolved in Alcohol. The cement thus made is best preserved in small bottles, in which it sets when cold. When required for use, it can be liquified by placing the bottle in a cup of boiling water.

Another Excellent Diamond Cement.—Take Gum Mastic 1 ounce, Gum Ammoniacum 1 ounce, Isinglass 2 ounces, Distilled Vinegar 11 ounces. Mix thoroughly.

The New French Cement.—An excellent cement may be made by dissolving 1 part of Amber in $1\frac{1}{2}$ parts of Sulphide of Carbon. This liquid should be applied with a brush to the surfaces it is desired to unite, and, on pressing them firmly together, the cement dries almost immediately.

Useful Cement for Many Purposes.—Mix Ground Litharge with Glycerine to the consistency of dough. Thus prepared it will resist the action of common acids, hydro-carbons, and water, and a very considerable degree of heat without decomposition. Electrotypes may be taken with it by stirring the litharge into the glycerine until it is so thick as just barely to pour. The article from which the cast is to be taken should be thickly coated with Sweet Oil, before the composition is applied. The cast will be “sharp cut” and well defined.

Cement for Filling Teeth.—1 part Pulverized Borax, 9 parts Freshly Calcined Oxide of Zinc, 2 parts Finely Powdered Silix. Mix them well, and use like amalgam or any plastic filling.

Cement for India Rubber.—Bisulphide Carbon 4 oz., Best India Rubber 1 oz., Isinglass 2 drachms, Gutta Percha $1\frac{1}{2}$ oz. Mix and dissolve.

Cement to Fasten Rubber to Wood or Metal.—As rubber plates and rings are now almost exclusively used for making connections between steam and other pipes and apparatus, much annoyance is often experienced by the impossibility or imperfections of an air tight connection. This is avoided entirely by employing a cement which fastens alike well to the rubber and to the metal or wood. Such cement is prepared by a Solution of Shellac in Ammonia. This is best made by soaking Pulverized Shellac in ten times its weight of Strong Ammonia, when a shiny mass is obtained, which in three or four weeks will become liquid without the use of hot water. This softens the rubber, which becomes, after the volatilization of the ammonia, hard and impermeable to gases and fluids.

Cement for Iron.—Take 16 parts of Steel Filings, 3 parts Sal Ammoniac, and 2 parts Flowers of Sulphur. This mixture can be preserved any length of time in dry packages. In order to lute with it, add to one part of the mixture 12 parts of Iron Filings, and enough Water, previously acidulated with Sulphuric Acid, to form a paste. This is now ready to be applied to the perfectly clean surfaces of the metal to be luted. For fine castings and small holes, the pulverized iron (*Ferrum pulveratum* of apothecaries) can be substituted for iron-filings.

Liquid Cement for Mending China, Crockery, Woods, &c.—6 parts of White Shell Glue broken small, macerated for several hours in 16 parts of Water. 1 part of Hydrochloric Acid, and $1\frac{1}{2}$ parts of Sulphate of Zinc are then added, and the mixture exposed for 10 or 12 hours to a temperature of 68° or 70° .

Cement for Fixing Brass on Lamps, &c.—Mix Alum Water and Plaster of Paris to the consistency of paste. This forms a very hard composition.

Cement for Iron and Stone.—5 parts Litharge, 3 parts Concentrated Glycerine. Mix well. This will harden rapidly and be unaffected by the ordinary acids, or by heat. It is less easily broken than stone itself.

NOTE.—This cement will mend cracks in lead pipes readily.

An Improved Cement.—The following preparation will fasten leather, gutta percha, and similar substances on metals, and make them durable:—Take 56 pounds of Good Common Glue, melt it on the fire, and add $3\frac{1}{2}$ pounds of Gum Ammoniac. Stir these well till reduced to an even mass, remove from the fire and pour in gradually $3\frac{1}{2}$ pounds of Nitric Acid and incorporate with the rest. This has been proved to be the best among metal binders, because not susceptible to the action of oil.

Chinese Cement.—Take Best Pale Shellac 2 pounds, Alcohol 4 pounds. Macerate until dissolved.

Another Chinese Cement.—Dissolve 6 ounces of Shellac in $1\frac{1}{2}$ pints of Water containing 2 ounces of Borax, and evaporate to the consistency of molasses.

Japanese Cement.—Thoroughly mix some Best Powdered Rice with a little Cold Water, then gradually add Boiling Water until a proper consistency is had, being careful to stir it well until it is perfectly uniform. Then boil one minute in a Porcelain-lined Saucepan. This will make an almost transparent glue well adapted for all kinds of fancy paper work which requires a strong and colorless cement.

Cement for Holding Metals to Glass.—Take 4 oz. Thick Solution of Glue, 2 ounces Linseed Oil Varnish, 1 ounce Pure Turpentine. Mix and boil them together in a Close Vessel. When the cement is applied, the metal and glass to be joined should be clamped and permitted to remain so for 48 hours, so as to allow the cement to take strong hold and to harden.

Cement for an Aquaria.—Mix well Dried Powdered Venetian Red 3 lbs., with Oxide of Iron 1 lb., and add as much Boiled Oil as will make the mixture into a stiff paste.

Colored Cements that will Harden in a Short Time.—If Finely Pulverized Chalk is stirred into a solution of Soluble Glass of 33°, until the mixture becomes thick and plastic, a cement is obtained which will harden in from 6 to 8 hours, and possess an extraordinary durability, and alike applicable for domestic and industrial purposes.

If, instead of chalk, any of the following substances be employed, differently colored cements of the same general character will be obtained:—

1. Finely Powdered Black Sulphide Antimony will produce a dark cement, which, after burnishing, will present a beautiful metallic appearance.
2. Pulverized Cast Iron will produce a grey cement.
3. Zinc Dust (so-called Zinc Grey), will produce an exceedingly hard cement, which, after burnishing, will exhibit the fine white and brilliant appearance of metallic zinc. This cement may be employed to advantage in mending ornaments and vessels of zinc, adhering alike to metals, stone, and wood.
4. Carbonate of Copper produces a light green cement.
5. Cobalt Blue produces a blue cement.
6. Minium produces an orange colored cement.
7. Vermillion a splendid red cement.

Marine Paint Glue.—Dissolve 8 parts of India Rubber in 68 parts of Coal Tar Naphtha, assisting the solution with heat and frequent agitation. The solution when properly reached, will be as thick as cream, to which must be added 128 parts of Powdered Shellac, which must in turn be intimately combined with the mixture first made, by means of heat, until the entire mass assumes a uniform appearance. While still hot it should be poured on Sheet-iron Plates to the thickness of leather. It can be permanently kept in this state, and when it is required for use, it is to be put into a Pot and remelted, and while in a liquid condition applied to the surfaces to be cemented with a Common Paint Brush. Two pieces of wood cemented with this paint can hardly be sundered.

A Valuable Cement for Steam Fittings, &c.—

Take 6 parts of Finely Powdered Graphite, 3 parts of Slacked Lime, and 8 parts of Sulphate Lime, and mix them well with 7 parts of Boiled Linseed Oil. The mass must be well kneaded so as to become perfectly homogenous.

NOTE.—This cement is impermeable by air and steam, and is therefore valuable to steam and gas fitters. It is superior to any other in use for their work.

Kourie Cement.—Take 6 parts, by weight, of New Zealand Kourie Gum, and mix with it 2 parts, by weight, of Best Castor Oil. This has been found to make a very reliable, excellent, strong, and water-proof cement for caulking tanks, and cementing pieces of glass, stone, or wood together.

Elastic Collodion Cement.—Take 8 parts of Gun Cotton, and dissolve it in 125 parts of Strong Ether and 8 parts of Strong Alcohol. Then add 4 parts of Venetian Turpentine and 2 parts of Castor Oil. When intended for surgical purposes, as a varnish, which when dry forms a perfectly close-fitting plaster, it has been found that the addition of some Glycerine to the Ordinary Collodion, in which it is dissolved to a small extent, makes a varnish which adheres strongly to the skin, does not crack, and, on account of its elasticity, does not crease the skin.

Invisible Patching, or, Leather Cement.—This useful and popular article is prepared as follows, and the receipt is the best that has been yet found for the purposes mentioned:—Mix 10 parts of Bisulphite of Carbon with 1 part Spirits Turpentine, and then add enough Gutta Percha to make a tough, thickly-flowing liquid. One essential prerequisite to a thorough union of the parts to be united is their freedom from grease. This may be accomplished by laying a cloth upon them and applying a hot iron for a few moments. The cement is then applied to both parts to be joined, and pressure applied until the cement dries.

Cement for Iron Flues.—Common Salt and Sifted Wood Ashes, equal parts, made into a paste with Water, make a good cement for iron flues, etc. better than most other compositions, and may be applied when the flue is hot or cold. Iron-filings and Vinegar will do as well, or rather Iron-filings moistened with diluted Muriatic Acid. These are commonly used for filling up the spaces between cylinders.

Cement for Wood Roofing.—This composition is formed of the following materials, viz. Mineral Coal Tar, Pulverized Coal, (Charcoal is esteemed the best) and Fine Well-slacked Lime; the coal and lime to be well mixed together, proportioned at about four-fifths coal, and one-fifth lime; the tar to be heated, and, while hot, thickened with the mixture of coal and lime, until it becomes so hard that it may be easily spread upon the surface of a board, and not run when hot. The cement must be applied warm, and is found to be used easiest with a trowel.

Blood Cement.—This cement is often used by copper-smiths to lay over the rivets and edges of sheets of copper, in large boilers, to serve as an additional security in the jointings, and to secure cocks, etc. from leaking; it is made by mixing Pounded Quick-Lime with Ox's Blood. It must be applied when freshly made, as it soon gets so hard as to be unfit for use.

If the properties of this cement were duly investigated, it would be found useful for many purposes to which it has never yet been applied. It is extremely cheap and very durable.

Water-Proof Glue.—1 ounce Gum Sandarac and 1 ounce of Mastic are to be dissolved in 1 pint of Alcohol, to which 1 ounce of White Turpentine is to be added. At the same time a Very Thick Glue is to be kept ready, mixed with a little Isinglass. The solution of the resins in alcohol is to be heated to boiling in a glue-pot, and the glue added gradually, with constant stirring, so as to render the whole mass homogeneous. After the mixture is strained through a cloth it is ready for use, and is to be applied hot. It dries quickly and becomes very hard, and

surfaces of wood united by it do not separate when immersed in water.

The Best Submarine Cement.—Take 2 gills Litharge, 2 gills Plaster of Paris, two gills Fine Dry White Sand, two-thirds of a gill of Finely Powdered Rosin. Sift and keep them until required for use, when they should be made into a Putty by mixing them with Boiled Linseed Oil, to which a little Dryer has been added. It should be used within 12 hours after being mixed.

NOTE.—The above cement is the one employed in constructing the tanks of the Zoological Gardens in London, and is perfectly free from anything that will injure animal or vegetable life. It is but little known, but is entirely reliable. It adheres firmly to glass, metal, wood, Stone, etc., and hardens under water. It can be used for marine as well as fresh water aquaria, as it resists the action of salt water. Three or four hours should be given it to dry before being subjected to the water.

Turkish Glue which will Unite Polished Steel.—The following is used to fasten diamonds and other precious stones to metallic surfaces, and is said to be capable of strongly uniting polished steel, even when exposed to moisture. It is as follows:—Dissolve five or six drops of Gum Mastic, each the size of a pea, in as much Spirits of Wine as will suffice to render them liquid. In another vessel dissolve in Brandy as much Isinglass, previously softened in Water, as will make a two ounce vial of strong glue, adding two small pieces of Gum Ammoniac, which must be rubbed until dissolved. Then mix the whole with Heat. Keep in a vial closely stopped. When it is to be used, set the vial in boiling water.

Liquid Glue.—Take some Good Strong Glue and mix it with Full Proof Whiskey. Let it digest for three or four days, and it is ready for use.

A Superior Liquid Glue.—Dissolve 2 parts of Powdered Alum in 240 parts of Soft Water. Then add 240 parts of Acetic Acid, and 80 parts of Alcohol, and let them digest.

Draiper's Glue.—Take 3 parts of Glue, broken into small pieces, and covered with 8 parts of Water, and let them stand for several hours. Then add $\frac{3}{4}$ part of Chlorhydric Acid and 1 part of Sulphate of Zinc, and expose the whole to a temperature of from 178° to 192° Fahrenheit, during 10 or 12 hours. The compound thus obtained does not gelatinize; it only needs to be allowed to settle, and will be found a most useful agent for joining purposes.

Common Prepared Glue.—Dissolve 2 pounds Good Common Glue in 3 pints of Warm Water, and add 1 quart of Strong Vinegar. Ready to use after 24 hours.

To Make Rice Glue.—This elegant cement is made by mixing Rice Flour intimately with Cold Water, and then gently boiling it. It is beautifully white and transparent. Papers pasted together by means of this cement, will sooner separate in their own substance than at the joining, which makes it extremely useful in the preparation of curious paper articles, as tea-trays, ladies' dressing boxes, and other articles, which require layers of papers to be cemented together. It is, in every respect preferable to common paste made with wheat flour, for almost every purpose to which that article is usefully applied. It answers well, in particular, for pasting into books the copies of writings taken taken off by copying machines on unsized silver paper.

With this composition, made with a comparatively small quantity of water, that it may have a consistency similar to plastic clay, models, busts, statues, bas-reliefs, and the like, may be formed. When dry, the articles made of it are susceptible of a high polish; they are also very durable.

Stone Glue.—Put a piece of White Flint Stone into the midst of a fierce fire; when it is of a red or rather a white heat, take it out with a pair of tongs, and suddenly drop it into a pan of cold water, which should be placed ready for the purpose. This will destroy the powers of adhesion in the flint, and precipitate the stone to a fine powder, from which you must carefully

pour off all the water. Next melt White Resin in an Iron or Earthen Pipkin; and stir the flint stone powder into it till it is of the consistence of thick paste.

When you use this glue, warm the edges of the glass, stone, china, or earthenware, and rub it thereon: then carefully and neatly place them together; when quite cold, with a knife scrape off as much of the cement as remains outside.

East Indian Glue.—Take 2 pounds of the White Shell Glue, boil and strain it until it becomes perfectly clear and jelly-like. Then boil 8 ounces Cooper's Isinglass to a creamy consistency, and mix the two substances, while still hot, in a Clean Double Glue Pot. Then add 1 pound of Good Brown Sugar to the mass, and boil them together, stirring it occasionally, until it becomes thick. Then pour it off into Shallow Pans or Moulds. When nearly cold cut into convenient peices for the desk or to carry in the pocket.

This is a very useful cement for many purposes, such as repairing book-binding, leather goods, bank bills, parchments, and a thousand other things. It is ready for use immediately after holding it over steam for a moment, or wetting it with the tongue, and rubbing it on the surfaces to be cemented. It is very strong.

Sealing Wax for Cans.—Take of Rosin 1 pound, Beeswax 2 ounces, Lard or Grease 2 ounces, Venetian Red one-fourth of a pound. Melt together.

A New and Reliable Cement for Bottles.—A new cement which is easily prepared and applied, and which will prevent the escape of the most volatile liquids, will be useful information to many. It is composed simply of very Finely Ground Litharge and Concentrated Glycerine, and it is merely Painted around the cork or stopper. It dries quickly, and becomes extremely hard, but can be easily scraped off with a knife, when it is necessary to open the bottle.

Excellent Cement for Steam Pipes, &c.—Take 2 parts of Litharge, 1 part Dry-slacked Lime, and 1 part Fine Dry Sand. Combine them thoroughly, and add enough Hot Linseed

Oil Varnish to form a paste-like mass. This will be found an excellent cement, entirely to be depended upon, for iron steam-pipes. It sets hard quickly, and must be freshly prepared every time it is required for application, which application must be made only when the cement is quite hot.

A Strong White Paste.—Dissolve $2\frac{1}{2}$ ounces of Gum Arabic in 2 quarts of Water, and stir into it 1 pound of Wheat Flour until the whole becomes of a pasty consistency. It is then to be heated, and $1\frac{1}{2}$ ounces each Sugar of Lead and Alum dissolved in a little Water, added thereto, and the composition well stirred until it shows signs of boiling, when it must be removed from the fire. This is a very tenacious and durable paste, and may be used on almost any substance.

Dr. Parish's Pastes for Fixing Labels on Glass.
No. 1.—Take of Gum Arabic 1 ounce, Boiling Water and Glycerine 2 fluid ounces, each. Make a Solution.

No. 2.—Take of Gum Arabic and Powdered Gum Tragacanth half an ounce each, Water $1\frac{1}{2}$ ounces, Acetic Acid 20 drops. Mix. The acid is used to prevent chemical change, although a stiff paste made of tragacanth alone is not inclined to spoil by fermentation.

Paste, that will Keep a Year without Fermentation.—Dissolve 1 ounce of Alum in 1 quart of Boiling Water; when cold, add as much Water as will give it the consistency of cream; then sprinkle into it 1 teaspoonful of Powdered Rosin, and 2 or 3 Cloves ground, and boil a few minutes.

To Make a Good Mucilage.—The best quality of mucilage is made by dissolving Clear Glue in equal volumes of Water and Strong Vinegar, and adding one-fourth of an equal volume of Alcohol, and a small quantity of a Solution of Alum in Water. The action of the vinegar is due to the acetic acid which it contains. This prevents the glue from gelatinizing by cooling; but the same result may be accomplished by adding a small quantity of Nitric Acid. Some of the preparations offered for sale are merely boiled starch, or flour, mixed with nitric acid to prevent the gelatinizing.

VARNISHES, ETC.

To Make Grecian Varnish.—Take 3 ounces Balsam Fir, 2 ounces of Alcohol, 1 ounce of Spirits of Turpentine. Mix well together.

Photographic Varnish.—Dissolve 5 parts of Finely Powdered Sandarac in 20 parts of Strong Alcohol, and add, with agitation, 2 parts of Venice Turpentine. When this is dissolved add $1\frac{1}{2}$ parts Oil Lavender or Turpentine, and $1\frac{1}{2}$ parts Powdered Camphor, and when these are in turn dissolved, filter. If the varnish should not give the desired lustre, a further quantity (from half a part to 1 part) of Sandarac may be added.

Transfer Varnish.—Take equal quantities of Balsam Fir and Spirits Turpentine. Mix, shake well, and set in a warm place until clear. Used in Decalcomania, and for Maps, Prints, Drawings, and other Articles of Paper; and also to Prepare Tracing Papers, and to Transfer Engravings.

Lacquer for Brass.—Tumeric 1 ounce, Saffron quarter of an ounce, Annatto quarter of an ounce, Rectified Spirits 1 pint. Digest at a gentle heat for several days. Strain the mixture through coarse linen, put the mixture into a bottle, and add 3 ounces Coarsely Pulverized Seed Lac. Place in a moderate heat and shake occasionally until dissolved.

Flexible Varnish.—India Rubber (cut small,) $1\frac{1}{2}$ ounces, Bisulphite of Carbon 1 pint. Digest in Cold Water until the Solution is complete. It dries as soon as laid on. Pure India Rubber or Gutta Percha must be used. Chloroform or Washed Ether may be substituted for the Bisulphite of Carbon.

Water-proof Varnish.—Take 1 pound of Flowers of Sulphur and 1 gallon of Linseed Oil, and boil them together until they are thoroughly combined, This forms a good water-proof varnish for textile fabrics.

Another Water-proof Varnish.—Take 4 pounds of Litharge, 2 pounds of Lampblack, 5 ounces of Sulphur, and 10 pounds of India Rubber dissolved in Turpentine. These substances are to be boiled together until thoroughly combined. Coloring matters may be mixed with them if desired. The varnish should be applied two or three different times, and dried after each application.

Tar Varnish for Iron.—Place any convenient quantity of Coal Tar in Small Retorts (the ordinary retorts being too large for the purpose), and heat it until the heavy oil commences to distil over. Then diminish the fire and allow the retorts to cool somewhat. The retorts are then to be opened, and a proportionate quantity of Heavy Oil of Tar added, and the mixture well stirred. All that remains to be done is to pour the mixture out, and the operation is complete. Varnish made in this way is much more preferable than tar, and dries quicker. According to the state of the atmosphere, it dries in from 24 to 48 hours. By incorporating Naphtha of the lowest quality—to do which the mass must be warm—with the material made with light oil instead of heavy oil, a varnish may be obtained which will dry in an hour or less.

Black Varnish for Iron-work.—Fuse 48 pounds of Asphaltum; add Boiled Oil 10 gallons, Red Lead and Litharge of each 7 pounds, Dried and Powdered White Copperas, 3 pounds. Boil for 2 hours; then add Dark Gum Amber (fused), 8 pounds, Hot Linseed Oil, 2 gallons; boil for 2 hours longer, or till a little of the mass, when cooled, may be rolled into pills; then withdraw the heat, and afterwards thin down with 30 gallons Oil of Turpentine. Used for the iron-work of carriages and for other nice purposes.

Varnish to Prevent Rust in Iron and Steel.—The rusting of steel and iron instruments is very perfectly prevented by coating them with a varnish made by dissolving 1 part White Wax in 15 parts Benzine, and applying it with a Brush. The very thin layer of wax forms a perfect covering for bright instruments, and when needed, is very easily removed.

Best Body Copal Varnish for the Body Part of Coaches and other Objects to be Polished.—Fuse 8 parts of Fine African Copal, and add 2 gallons Clarified Oil. These must be boiled very slowly for 4 or 5 hours until quite stringy, and be mixed with $3\frac{1}{2}$ gallons Turpentine.

NOTE.—The foregoing varnishes should be of the finest gum copal without the addition of driers. They are the palest and best of their kind, and have great fluidity and pliability. They are, however, slow in drying and require months for them to become hard enough to polish well. If the varnish is required to dry quickly, Sugar of Lead or Sulphate Zinc singly or together are to be added in the proportion of half a pound to 1 pound each of the quantities given in the above receipts; but the brilliancy, color, and durability of varnishes are injured by the introduction of driers.

Copal Varnish for Fine Paintings.—Fuse 8 pounds of the cleanest Pale African Gum Copal, and when it becomes perfectly fluid, pour in 2 gallons of Hot Oil. Let the mixture boil until it strings strongly, and, in about 15 minutes, while still very hot, remove from the fire and pour in 3 gallons Spirits of Turpentine. There may be considerable loss of turpentine during the mixing, but the varnish will be so much the brighter, more transparent, and fluid, and will work freer and dry quickly. If the varnish is too thick when cold, it may be thinned with Hot Turpentine.

Cabinet Varnish.—Fuse 7 pounds Fine African Gum Copal, and when it will run freely, pour into it half a gallon of Clarified Linseed Oil. When the mixture becomes clear remove it from the fire and mix 3 Gallons Spirits Turpentine with it, and strain. This varnish, if it has been properly boiled, will dry in 10 minutes; but, if it be boiled too much, it will not mix with the turpentine. It is used by japanners, and cabinet and coach painters.

Aniline Black Varnish.—Dissolve in 1 quart of Alcohol, 3 drachms of Aniline Blue, 45 grains of Fuseline, and 2 drachms of Naphthaline Yellow. Shake well and filter.

This solution when applied to white surfaces renders them at once jet black.

A Durable Black Varnish for Iron.—Mix with a small quantity of Oil of Turpentine, drop by drop, Oil of Vitriol, until it forms a syrupy precipitate which no longer increases in bulk. The mass is then poured over with water, stirred well, the water removed, and repeated as often as it shows trace of acid on litmus paper. The remaining precipitate is then strained dry, and when required for use, a portion of it is placed on the iron (stove, etc.), and the stove heated, and the powder burned. If too thick a layer, it must be thinned and spread out with more Turpentine, so as to give a uniform coating to the metallic surface. The residue left after burning is then rubbed in with a Rag dipped in Flax-seed Oil, until the proper polish has been acquired.

English Varnish for Paintings.—Take 6 ounces of Mastic, half an ounce of Gum Turpentine, 2 drachms of Camphor, 19 ounces Spirits of Turpentine. Add first the camphor to the turpentine, and make the mixture in a water-bath. When the solution is effected, add the mastic and the spirits of turpentine near the end of the operation.

Lacquering Varnish.—A varnish well adapted for lacquering pictures and engravings, as well as for preserving dried plants and flowers, is prepared by pounding 10 ounces of Gum Sandarac, 4 ounces of Mastic, and half an ounce of Camphor; then add 3 quarts of Strong Alcohol. Shake the mass frequently until dissolved, and, finally, place it in a warm situation until it settles. Plants coated with this varnish will be protected from insects and retain their colors fresh and unchanged; it will not peel off and can be applied very thinly.

Varnish to Prevent the Rays of the Sun from Passing Through the Glasses of Windows.—Pulverize Gum Tragacanth and put it to dissolve for 24 hours in White of Eggs well beaten.

Lay a coat of this on the panes of your windows with a Soft Brush, and let it dry.

Varnish for Wood Work.—Take any quantity of Swedish Tar, and grind it with as much Spanish Brown as it will bear, without rendering it too thick to be used as a paint or varnish, and then spread it on the pales, or other wood, as soon as convenient, for it quickly hardens by keeping.

This mixture must be laid on the wood to be varnished, by a House-painter's Large Brush; and the work should then be kept as free from dust as possible, till the varnish be thoroughly dry. It will, if laid on smooth wood, have a very good gloss, and it is an excellent preservative against moisture: on which account, as well as its being cheaper, it is preferable to painting, not only for pales, but for weather-boarding, and all other kinds of wood-work for grosser purposes. Where the glossy brown color is not liked, the varnish may be made of a greyish brown, by mixing a small proportion of White Lead, or Whiting, with the Spanish brown.

Varnish for Drawings.—Cut 2 ounces of Isinglass into small pieces, put them into a bottle, with half a gill of Water; after it has stood about 24 hours, add thereto half a pint of Spirits of Wine; *loosely cork the bottle*, and put it into a Saucepan filled with Water or Sand, but so that the neck of the bottle stands clear; then put the saucepan over a Gentle Fire, and let it remain till the isinglass is dissolved, but watch it carefully, and now and then loosen the cork: but do not remove it; some care is required in this part of the process, for if the cork be tightly fixed, the bottle will burst, and if it be taken out the spirit will evaporate and be lost. Being thus prepared, it is ready for use.

The drawing or print being previously mounted or pasted on a stretcher, wash it over with the preparation, and let it stand till it is *quite dry*—then wash it over a second time, (but not near the fire or it will blister,)—when again dry. Repeat a third time. It is now ready for the Spirit Varnish, which is to be made and applied as follows:

Take of Gum Sandarach and Gum Mastic, equal parts; dissolve them in Spirits of Wine, in the manner above directed for

dissolving isinglass; let it stand to settle for a day or two, then strain it through a Linen Cloth into a Clean Bottle for use. It is applied by carefully washing it over the print or drawing with a Camel's Hair Brush.

Luning's Colorless Varnish.—Dissolve $2\frac{1}{2}$ ounces of Shellac in 1 pint of Rectified Spirits Wine; boil for a few minutes with 5 ounces of Well-burnt and Recently-heated Animal Charcoal. A small portion of the solution should then be filtered, and if not colorless, more charcoal must be added. When all color is removed, press the liquor through a piece of *Silk*, and afterwards filter through Fine Blotting-Paper. This kind of varnish should be used in a temperature of at least 60° Fah. perfectly free from dust. It dries in a few minutes, and is not liable afterward to chill or bloom. It is particularly applicable to Drawings and Prints that have been sized, and may be advantageously used upon Oil Paintings that are thoroughly hard and dry, as it brings out the colors with the purest effect. This quality prevents it from obscuring gilding, and renders it a valuable varnish for all kinds of leather, as it does not yield to the warmth of the hand, and resists damp, which subjects leather to mildew. Its useful applications are very numerous, indeed to all the purposes of the best hard-spirit varnishes.

A Common Lac Varnish may be made by digesting 4 ounces of Clear-grained Lac in 1 pint of Spirits of Wine in a wide-mouthed bottle, keeping it in a warm place for two or three days, and occasionally shaking it. When dissolved, strain through Flannel into another bottle for use.

Crystal Varnish for Negatives.—Take White Shellac $2\frac{1}{2}$ pounds, Gum Mastic half a pound, Camphor quarter of an ounce, 98 per cent. Alcohol 1 gallon. Let the mixture stand, with occasional agitation, until dissolved, and filter.

Turpentine Varnish.—Put a pint of Turpentine into a Bottle, with half a pound of White Rosin in Powder; dissolve this in a gentle heat, by placing the bottle in an Iron Pot surrounded by Dry Sand, over a moderate fire.

Coachmakers' Varnish.—The fine black varnish used by coachmakers is prepared by melting 8 ounces of Amber in an Iron Pot, adding to it 1 gill of Drying Linseed Oil, boiling hot, and of Powdered Resin and Asphaltum, $1\frac{1}{2}$ ounces each. When the materials are well united, by stirring over the fire, they are to be removed, and after cooling for some time, half a pint of warm Oil of Turpentine is to be introduced.

White Varnish.—Take of Gum Sandarac 3 ounces, Mastic in drops 1 ounce, Gum Clemi half an ounce, Oil of Spike Lavender half an ounce, put them into a pint Vial and fill it up with the best Spirits of Wine. Let it stand in rather a warm place till all the gums are dissolved, and then pour off the varnish into a Clean Vial, and it will be ready for use.

Varnish for Maps, Drawings, &c.—Boil Parchment Cuttings in Water, in a Glazed Earthen Vessel, till they produce a very clear size; strain it, and keep it till wanted; then give the work two coats of the size, passing the brush quickly over the work, so as not to disturb the colors.

Another Good Map Varnish.—Mix 2 ounces Canada Balsam and 4 ounces of Spirits of Turpentine together, then size the map, or drawing, with a Solution of Isinglass in Water, and when dry, apply the varnish with a Camels' Hair Brush.

Furniture Polish.—Take Beeswax $2\frac{1}{2}$ ounces, White Wax 1 ounce, Castile Soap 1 drachm, Spirits Turpentine and Boiling Water, each 10 ounces, Carbonate of Potassa 1 drachm. Melt the wax and turpentine together; dissolve the soap and carbonate of potassa in water; and mix while warm, stirring constantly.

Dumont's Furniture Polish.—Take equal parts of Sweet Oil and Vinegar; mix; add 1 pint of Gum Arabic finely powdered. This will make furniture almost as good as new, and can be easily applied, as it requires no rubbing. The bottle should be shaken, and the polish poured on a Rag and applied to the furniture.

Wehrman's Furniture Polish.—Take equal quantities of Pure Olive Oil, Spirits Turpentine, and Holland Gin. Mix them together well by agitation. Before using the mixture, have the surfaces to be polished cleaned by means of a Soft Sponge and Soft Water only, being careful to have the wood well dried after cleaning. Then apply the polish with an old Flannel Rag, evenly and thoroughly, rubbing it in well, afterward, with another Flannel Cloth, until all moisture disappears.

Parisian Furniture Gloss.—To one pint of Spirits of Wine, add one-fourth of an ounce of Gum Copal, one-fourth of an ounce of Gum Arabic, and 1 ounce of Shellac.

Let your gums be well bruised, and sifted through a Piece of Muslin. Put the spirits and the gums together in a Vessel that can be closely corked, and place them near a Warm Stove, frequently shaking them. In two or three days they will be dissolved; strain through a Piece of Muslin and keep it tightly corked for use.

Italian Polish for Furniture.—To produce the Italian Polish, which is now more used than the French, first saturate the surface well with Olive Oil, and then apply a Solution of Gum Arabic dissolved in Spirits of Wine. The length of time the saturation is to remain, previous to the application of the varnish, will depend upon the state and kind of wood that is to receive the polish; so with the proportions of gum and spirits of wine. But as gum will not dissolve in alcohol or spirits of wine, you must pound the gum small, and add to it as little Boiling Water as possible to dissolve them. When the gum is dissolved and cold, put to it then Spirits of Wine; but, as in this case the Polish should be applied hot, the best way to effect this will be, to put the solution in a Bottle, corked, but not too tight, and immerse the bottle in a Pot or Saucepan placed over the fire till it is hot. Be careful that the bottle be placed upon a Plate, or on a Wisp of Hay in the water, or it will burst. This way of warming the dissolved gum is much the same as practiced by carpenters to warm glue, than which no better way can be pointed

out, and prevents the spirit evaporating, which would be the case were the bottle to be uncorked or the heat to be powerful. Let this application, and the subsequent friction, take place in a Warm Room; the proportions of gum and alcohol being adapted to the climate and to the height of polish required.

VALUABLE RECEIPTS FOR PRINTERS.

Cheap and Effective Preparation for Washing Printers' Type Forms, Rollers, &c.—Take 1 pound of any Good Chemical Soap, 2 pounds Sal Soda, 1 pound Salts of Tartar, 4 ounces Carbonate of Ammonia, 2 ounces Borax. Place the above articles in 1 gallon of Boiling Water, and let them dissolve by boiling. As soon as dissolved, add 4 gallons of Cold Soft Water and use same, as ley or benzine.

NOTE—The soap termed “Chemical Erasive” is best for this really useful preparation, and the carbonate of ammonia and salts of tartar should be kept in air tight vessels till the moment of using them as above, as their exposure to the atmosphere before they enter into the composition, is apt to impair their value.

A Quick Dryer for Printing Inks.—2 parts Japanners' Gold Size, 1 part Copal Varnish, and 2 parts Eber Powder, (*Radix Carlinæ*, or Carline Thistle). Incorporate these ingredients well together, with a small spatula, and use in quantities to suit the consistency of the ink employed, and the rapidity with which it is desired to dry. The usual proportion is a small teaspoonful of the dryer to about an ounce of average good ink.

A Good Reducing Dryer for Printing Inks.—Brown's (genuine) Japan. Use in small quantities.

Hardening Gloss for Printers' Ink.—Gum Arabic dissolved in Alcohol or a weak solution of Oxalic Acid. Use in small quantities, and mix with the ink as the latter is consumed.

To Give Printers' Dark Inks a Bronze or Changeable Hue.—Take $1\frac{1}{2}$ pounds Gum Shellac and dissolve it in 1 gallon 95 per cent. Alcohol or Cologne Spirits for 24 hours. Then add 14 ounces Analine Red. Let it stand a few hours longer, when it will be ready for use. Add this to good blue, black, or other dark inks, as needed, in quantities to suit, when, if carefully done, they will be found to have a rich bronze or changeable hue.

A Liquid for Brightening Common Qualities of Black or Colored Inks.—Demar Varnish 1 ounce, Balsam Fir $\frac{1}{2}$ ounce, Oil Bergamot 25 drops, Balsam Copiaba 35 drops, Kreosote 10 drops, Copal Varnish 50 drops. Use in small quantities.

This has been extensively sold for some time under a variety of names such as "Indispensable," "Prerequisite," etc.

The Whites of Fresh Eggs mixed with a little Refined Balsam Fir, and Gum Arabic dissolved in Alcohol, also brightens colored inks; but this mixture must be applied a little at a time, as it dries very hard, and is apt to take away the suction of rollers if used for any extended period.

Quick Drying Preparation for Printers' Inks to be Used on Bookbinder's Cases.—1 ounce Beeswax, $\frac{1}{4}$ ounce Gum Arabic dissolved in sufficient Acetic Acid to make a thin mucilage, $\frac{1}{4}$ ounce Brown's Japan, $\frac{1}{2}$ ounce Asphaltum Varnish. Incorporate with 1 pound of Wood Cut Ink.

To make Lithographic Transfer Ink.—Shellac $1\frac{1}{2}$ ounces, Good Soap 2 ounces, White Wax 1 ounce, Tallow 1 ounce. Add 3 tablespoonfuls of Strong Solution of Gum Sandarac; and when the whole is prepared, color with Ivory Black or the Best Lampblack.

Silvering Solution for Electrotpe Plates.—Nitrate of Silver 2 drachms, Distilled Water 37 drachms. Dissolve, and

add Sal Ammoniac 1 drachm, Hypophosphite of Soda, 4 drachms, Precipitated Chalk 4 drachms.

Agitate the preparation occasionally for twelve hours, when it will be ready for use. Apply with a piece of fine sponge.

To make a Strong and Durable Paste for Printers' Use.—1 full quart of Good Wheat Flour, 2 gallons Cold Water. Mix, and rub out with the hands all lumps that are formed by the flour. Then add about $\frac{1}{8}$ of a pound of Pulverized Alum, and boil the whole together eight or ten minutes, until the mass thickens, stirring it well all the time. Now add a quart of Hot Water, and boil until the paste becomes thick again and of a pale brownish tint. When well made, it will be perfectly clear and free from lumps, and will keep from ten to fifteen days.

Gum for Backing Labels.—Take any quantity of Clear. Pure Dextrine and mix it with Boiling Water until it assumes the consistency of ordinary mucilage. Apply thinly with a Full-bodied, Evenly-made, and Wide Camel's Hair Brush. The paper should not be too thin or unsized. The preparation will dry quickly, and adhere when slightly wet.

NOTE.—No more of the dextrine should be mixed at one time than can be used at once, as it cannot be remelted easily.

Receipts for Making Printers' Rollers.—No. 1.—*For Summer*—2 lbs. Cooper's No. 1 Glue, 2 lbs. Beader's, or any Good Common Glue, 1 gallon best Sugar House Molasses, $\frac{1}{2}$ to 1 pint Glycerine. *For Winter*, reduce each glue $\frac{1}{2}$ to $\frac{3}{4}$ of a lb.

DIRECTIONS:—First soak the glues, wrapped up separately in Woolen Cloths, until the pieces bend easily without snapping, which will generally take from two and a half to three hours. Boil the molasses for forty-five or fifty minutes, and skim it thoroughly. Then put in the glues, drained of superfluous water. Boil the whole for fifteen or twenty minutes. At last put in the glycerine; and after three to five minutes boiling and stirring, pour off.

The foregoing composition may be cut into small pieces from time to time, as rollers require renewal, and be remelted several times, adding a little Good Common Molasses each time.

No. 2.—*Strong Middle Weather Rollers*.—8½ lbs. Cooper's Best Dark Glue, 2 gallons Best Unclarified Molasses, 1 pint Glycerine, 2 ounces Venice Turpentine.

DIRECTIONS:—Steep the glue in Rain Water until pliant, and drain it well. Then melt it over a Moderate Fire, but do not "cook" it. This will take from fifteen to twenty-five minutes. Next put in the molasses, and boil for about three-fourths of an hour, stirring it occasionally, and removing any impurities that arise on the top of the composition. Add the other ingredients a few minutes before removing the boiler from the fire, and pour slowly.

The above makes excellent strong rollers for fast printing, when the thermometer ranges from 65° to 75°. Reduce or increase the quantity of glue as the weather becomes colder or warmer.

NOTE.—If the glycerine and turpentine are to be omitted, reduce the quantity of molasses one pint.

No. 3.—10½ lbs. genuine Irish or Buffalo Glue, 2½ gallons Black Sugar House Molasses or Honey, 1 lb. India-rubber dissolved in Alcohol, 2 ounces Venice Turpentine, 12 ounces Glycerine, 4 ounces strong Vinegar.

DIRECTIONS:—Soak glue over night, and drain in the morning by means of a *Covered Collender* for one hour. Boil molasses, and skim for twenty minutes. Add the india-rubber, and stir until it combines with the molasses. Add glue, and boil for forty minutes, occasionally stirring the mass. Put in Venice turpentine and glycerine; boil six or seven minutes, and pour.

This is the receipt for making the mysterious "Black Composition" so durable and elastic, and known to but very few persons until recently. If properly handled, it cannot be excelled, and contains every element required in a roller. Caution must be taken that only purified rubber gum is used. When this cannot

be procured, add a pound and a half Bonnet Glue, and four ounces more Glycerine,

No. 4.— $4\frac{1}{2}$ lbs. White Shell or Bonnet Glue, $\frac{3}{4}$ gallon Clean Wild Honey, 1 quart Sugar House Molasses, 2 ounces Burgundy Pitch.

DIRECTIONS:—Soak glue twenty minutes, or until pliant, and drain through a seive, but keep from air. Simmer honey and molasses, from a quarter to one-half of an hour. Add glue and pitch, boiling twenty minutes longer. Stir the mass, and skim well during process.

A small quantity of this composition dropped on a board or iron plate will indicate when it is properly combined. A shorter or longer time than is given above for boiling, as may be found sufficient or necessary, will sometimes happen. This makes a clear and durable roller

GENERAL DIRECTIONS:—When rollers are made first, have the molds oiled evenly, and have the stocks ready. The water in the outer kettle should be boiling, and its level should be at least as high as the composition in the inner kettle. When it is melted, cease stirring, and take the kettle immediately out of the water and set it on the floor. The moulds may now be warmed by pouring hot water on them. When the composition has stood on the floor for about three to five minutes, all the bubbles of steam will have arisen to the surface, and as it is not on the fire, no more are being formed; hence, you have solid composition with all the bubbles in a thin scum on the top. Skim this all off with a sheet of paper, and pour *slowly*, so as not to entangle any air, and cause bubbling. With these precautions, you will have *solid* perfect rollers, free from bubbles or air holes. Have the moulds *warm*, but not hot, or they will cause fresh bubbles of steam to form.

The composition kettle should be well Oiled before using. Wrap all stocks well with fine, *Rough Twine*.

Do not cook composition long; as soon as it is well melted take it off.

DIRECTIONS FOR USING ROLLERS:—Do not draw from the moulds till next day after casting; then wipe off the oil, and let them season in a Dry Place for two days.

Sponge them only when they need it.

Keep rollers in a Tight Closet when not in use, and keep Cups of Water in the closet.

The mode of cleaning is simply to place the roller horizontally, resting on its ends, and drop, while rubbing lightly with a Sponge, a little Benzine or Coal Oil upon it to loosen the ink; when done, wipe the roller off clean, and after lightly, but evenly, sponging it with a Damp (not wet) Sponge, it is in a few minutes, ready for the press.

Never wash a roller with ley—always use Oil or Benzine.

Ley will wash out the soluable constituents of any roller, leaving only a body of glue.

DIRECTIONS FOR RECASTING ROLLERS:—Sponge the face of the roller with Hot Water; scrape off the face thoroughly with a Knife; take the composition off the stock and cut it up small. If the roller has been used only a short time, it may be melted about as readily as new composition; if it is older, put it in a Seive or Basket and soak it in cold water for about fifteen or twenty minutes; take it out of the water, cover with a Damp Cloth, and leave over night; then melt as usual. If composition is too hard, wait till it is melted, and stir in a sufficient quantity of common molasses; avoid heavy, clarified syrups.

SOAPS, WASHING FLUIDS, ETC.

Excellent Household Soap.—When the boiling ley will strip a feather clean, put into 2 gallons of Ley $1\frac{1}{2}$ pounds of Clean Grease. Boil it, (trying whether it has enough of grease with a feather,) until it becomes very thick; then throw in 1 pint of Salt, and 5 pounds of Borax, to every 4 gallons of soap.

Boil it a while longer, and set it off to cool. When hard, cut it out in bars, scrape off the sediment from the bottom, and put it on a shelf to drain. The ley, etc., at the bottom of the kettle answers for rough scouring, but it is more useful on the garden.

Labor-saving Soap.—Take 4 pounds of Sal Soda, 4 lbs. of Yellow Bar Soap, and 5 quarts of Water. Slice the soap in thin pieces, and boil it for 2 hours. Strain, and it is ready for use. When used, put the clothes to be washed in soak the night before washing, and to every pail of water in which they are to be boiled, add 1 pound of the soap. They will require no rubbing. Merely rinse them out well, and they will be found perfectly clean and white.

Matchless Soap.—Take 2 gallons Soft Soap, and add to it half a pint of Common Salt. Boil 1 hour. When cold, separate the ley from the crude. Add to the latter 4 pounds of Sal Soda, and boil in 4 gallons Soft Water until the mass is dissolved. If a still better article of soap is desired, slice 4 pounds of Common Bar Soap, and dissolve in the above. Should the soft soap makes more than 6 pounds of crude, add a proportionate quantity of Sal Soda and Water.

To Make Hard Soap from Soft.—Take $3\frac{1}{2}$ pounds Good Soft Soap, 2 pounds Sal Soda, 1 ounce Borax, half an ounce Hartshorn, and one-fourth pound Rosin; to be dissolved in 11 quarts of Water, and boiled about twenty minutes.

Myrtle Soap.—Dissolve $4\frac{1}{2}$ pounds of White Potash in 10 quarts of Water; then mix with it 20 pounds of Myrtle Wax, or Bayberry Tallow. Boil the mixture over a Slow Fire until it becomes soap; then add a teacupful of Cold Water, and let it boil 10 minutes longer. At the end of that time turn it into Tin Moulds or Pans, and let it remain 8 or 10 days to dry, after which turn the cakes out of the moulds. If the soap is to be scented, stir into it, just before pouring, such pleasant and popular Essential Oils as your judgment may select. This kind of soap is an excellent one for Shaving with, and also for Chapped Hands. It

will be fit for use in from 20 to 30 days after it is made, but it becomes constantly better with age.

Soap Without Fire.—Mix 13 pounds of Melted and Strained Grease, with 2 pailfuls of Ley made from 10 pounds of White Potash. Let the mixture stand in the sun, stirring it frequently. In the course of a week, fill the barrel with Weak Ley.

California Soap.—5 pounds White Bar Soap, (Yellow will do), 4 pounds Sal Soda, half a pound Borax, 1 ounce of Ammonia. Dissolve these materials in 5 quarts of Water. When perfectly dissolved, pour the liquid into 7 gallons of Soft Water and mix thoroughly.

This soap is said to be equal to any wash mixture—very searching, but not injurious to the hands.

Whale Oil Soap.—Render Common Ley caustic, by boiling it at full strength with Quicklime. Then take the Caustic Ley and boil with it as much Whale Oil Foot as it will saponify (change to soap). Pour off into moulds, and, when cold, it will become tolerably hard. Whale oil foot is the sediment produced in refining whale oil, and can be purchased for a small price. Whale oil soap is especially valuable for the destruction of small vermin, insects, etc. A solution of it in water may be applied to plants afflicted with lice, etc.

Chemical Erasive Soap.—Cut fine $2\frac{1}{2}$ pounds of Castile or any other nice Old Soap, and add to it half a pint of Alcohol, half a pint of Soft Water, 1 ounce Aqua Fortis, three-fourths of an ounce of Lampblack, 1 ounce of Saltpetre, $1\frac{1}{2}$ ounces of Potash, half an ounce of Camphor, and 2 ounces of Powdered Cinnamon. First dissolve the soap, potash, and saltpetre, by boiling; then add all the other articles, and continue to stir until it cools; then pour into a Box and let it stand twenty-four hours and cut into cakes.

The Best Erasive Soap.—Take 4 pounds Good Castile Soap, 1 pound Carbonate Potash, and dissolve them in 1 pint of

Hot Water. Cut the soap into thin slices, and boil it with the potash until it is thick enough to mould into cakes. Also add Alcohol, Camphor, and Hartshorn, each 1 ounce. Color with 1 ounce Finely Pulverized Charcoal.

Glycerine Soap.—Take 100 parts Oleine of commerce, (Winter-strained Lard Oil will answer), and add 314 parts of Heavy Glycerine. Heat to 50°, and then add 56 parts Aqueous Solution Caustic Potassa, (specific gravity 1.34) and stir the mixture well. This soap exhibits the consistency of honey, in which state it remains.

French Liquid Soap.—Saponify a mixture of 100 grammes Glycerine, and 32 grammes Oleine, with 17 grammes of Concentrated Potassa Solution. To the soap, which is of the consistency of thick syrup, add 3.5 grammes Carbonate of Potassa, dissolved in a little Water. Allow the mixture to rest for some time, and decant. This soap may be mixed with, and serve as a vehicle for the external application of tannin, iodine, bromide, etc.

Creme de Savon.—Heat together 5 pints of Water, 2 lbs. of Glycerine, and from three-quarters to 1 pound of Sal Tartar. Let them come to a boil, and add 2 lbs. Stearic Acid, which causes effervescence, and then stir until the mixture cools. As perfumes, should be added, Nitrobenzol (Essence de Mirbane), Oil Rose Geranium, Oil Lavender, Amylic Acetate (Peach-ether), of each 20 drops.

Saponaceous Shaving Cream.—Mel 2 drachms each of Spermaciti, White Wax, and Almond Oil, in a Porcelain-lined Vessel. Then beat into the compound 4 ounces of the Best White Soap, and scent with a little Lavender or Cologne Water.

Hauel's Shaving Soap.—6 ounces White Castile Soap, 16 ounces Cologne Spirits, 8 ounces Distilled Water, 2 drachms Carbonate of Potash. Scent with Essences to suit the taste. Dissolve the soap without heat, and then add the potash and scents.

Roussel's Shaving Cream.—2 pounds of White Soft Soap, 1 ounce Oil of Olives, 2 drachms Gum Benzoin, 48 ounces Alcohol. Let them digest. Use by rubbing small quantities on the beard, followed by a Shaving-brush saturated with Hot Water.

Guerlain's Shaving Cream.—Take 2 pounds of the very best White Palm Soap, and half a pound of clean and good Common Soap. Scrape into small particles. Place it in a copper boiler with a quart of Rain Water; dissolve without burning. Then add 1 pint of 85 per cent. Alcohol, 1 gill clean Beef's Gall, half a gill rectified Spirits Turpentine; boil all of these together for five minutes, stirring slowly the while. While cooling, flavor with Essential Oils of Roses, Almonds, etc., to suit. It may be colored with a little Vermillion, Nakarat, etc.

NOTE.—This is the receipt from which the celebrated perfumer M. Guerlain has made his fine shaving cream. It produces a substantial lather, is delightful to the skin, and is really very fine.

Cosmetic Toilet Soap.—Take 4 pounds of Castile Soap, or any other nice Old Soap and scrape it fine; put it on the fire with a little Water; stir it to a Smooth Paste; turn it into a Bowl; when cold, add some Lavender Water, or any desirable Essence; beat it with a Silver Spoon until well mixed; thicken with Indian Meal, and keep it in Small Pots closely covered. Exposure to the atmosphere will harden it.

Lemon Wash Balls.—Cut 9 pounds of Soap into very small pieces; melt it with $1\frac{1}{2}$ pints of Water in which 9 Lemons have been boiled. When melted, withdraw the soap from the fire, and add $4\frac{1}{2}$ pounds of Powdered Starch, and a little Essence of Lemon. Knead the whole into a Paste, and form into Balls of the desired size.

Cream Wash Balls.—Take 14 pounds of White Curd Soap, 2 pounds Powdered Starch, Water or Rose Water sufficient to mix. Beat together and make into Balls.

Camphor Wash Balls.—Take 2 pounds White Soap, 2 ounces Spermaceti, and Water sufficient to mix them. Melt the compound, and add 2 ounces of Powdered Camphor.

To Make Hard White Soap.—Take $7\frac{1}{2}$ pounds of Lard, or Suet; make boiling hot, and mix with it, slowly, 3 gallons of Hot Ley, or Solution of Potash, that will float an egg so as to leave a small portion of it above the surface. Then take out a small quantity of the mixture and let it cool. When no grease appears the soap is done. If any grease appears, add ley, and boil until the grease ceases to rise. Then add 3 pints of Fine Salt and boil again. If the soap does not harden well on cooling, add more salt. If it is to be perfumed, melt it the next day, add the Perfume, and run it into Moulds, or cut into Cakes.

Genuine Windsor Soap.—Slice the Best White Soap as thin as possible, melt it in a Saucepan over a Slow Fire, scent it well with Oil of Carraway, and then pour it into a Frame or Mould made for that purpose, or a Small Drawer, adapted in size and form to suit the quantity. When it has stood for 3 or 4 days in a dry situation, cut it into Square Pieces, and it is ready for use. By this simple mode, substituting any more favorite scent for that of carraway, all persons may suit themselves with a good perfumed soap at the most trifling expense. Shaving boxes may be at once filled with the melted soap, instead of the mould.

Valuable Chemical Washing Receipt.—The following receipt has been sold for some time as a great secret. It is so excellent that we consider it worthy of a place in this book. Take half a pound each of Soap, Sal Soda, and Quicklime. Cut the soap into small pieces and dissolve it in 2 quarts of Boiling Water. Pour 2 quarts of Boiling Water over the soda, and 6 of Boiling Water upon the quicklime. The lime must be quick and fresh. If it is good, it will bubble up on pouring the water upon it. Each of the named ingredients must be prepared in separate vessels. The lime must settle so as to leave the water on top perfectly clear; then strain it carefully (without disturbing the settlings) into the Wash-boiler with the soda and soap; let it scald long enough to dissolve the soap; then add 12 gallons of Soft Water. The clothes must be put in soak over night, after

rubbing Soap upon the dirtiest parts of them. After having the cleansing preparation above given, in readiness, wring out the clothes which have been put to soak, put them on to boil, and let each lot boil half an hour. The same water will answer for the whole washing. After boiling each lot of clothes the prescribed time, drain them from the boiling water, put them in a tub, and pour upon them 3 or 4 pailfuls of Clear, Hot Water. After this they will require but very little rubbing; but rinse them through two waters, bluing the last. When dried the clothes will be a beautiful white. After washing the cleanest part of the white clothes, take 4 pailfuls of the Suds in which they have been washed, put it over the fire and scald, and this will wash all the flannels and colored clothes, without any extra soap. The white flannels, after being well washed in the suds, will require to be scalded in turn by having a teakettleful of boiling water poured over them.

The Grand Secret, a New Saponaceous Process of Cleaning Clothes of every description. Dispenses with Rubbing, Pounding and Boiling, saves Half the Labor and Costs Such Less than the Ordinary Process.—Take 2 ounces of Spirits of Turpentine, and one-fourth of an ounce of Spirits of Sal Ammoniac, and mix well together. Then put the mixture into a tub of Warm Water, in which half a pound of the Best Quality Hard Soap has been dissolved. Into this the clothes are immersed during the night, and the next day rinsed, the dirtiest clothing being freed from dirt, and fine linens much longer preserved.

To make the spirits of sal ammoniac, dissolve Sal Ammoniac in 92 per cent Alcohol.

To Preserve Soap Grease.—Boil all the Scraps, Rinds, and Bones, in a Weak Ley, and the Purer Grease in Clear Water. Let the mixture cool, take off the cake of grease, and strain it. It is well to do this occasionally, as you save it; for when kept a long time, impure grease becomes offensive. You must be careful to dry off all the water before you lay it away in your grease tub, if you wish it to keep sweet.

To Make Ley for Soap.—Have a Large Tub, or Cask and bore a Hole on one side, for a Tap, near the bottom; place several Bricks near the hole, and cover them with Straw. Fill the Barrel with Strong Wood Ashes. Oak ashes are the strongest; and those of apple-tree wood make the whitest soap. Pour on Boiling Water until it begins to run, then put in the tap and let it soak. If the ashes settle down as they are wet, fill in until full.

White Ley for Soap.—This is made by pouring a pailful of Boiling Water over 4 or 5 quarts of Ashes. Let it stand a while to infuse; then pour in Cold Water to settle it, when you can pour it off clear. This is very good to boil dirty clothes in. When made nice, it is equal to soda, and does not, unless made extremely strong, injure the clothes.

PAINTS AND PAINTING, STAINS, DYES, ETC.

Grecian Painting.—First, procure an Engraving or Lithograph for your design to paint. Second, fasten the same, by pasting or tacking it to a small Wood Frame, in order to keep it straight while preparing or painting. Then take a Soft Blender or Copying Brush, and saturate your picture on the wrong side until thoroughly wet, with Spirits of Turpentine. This done, continue to saturate on the back, by using Grecian Varnish, instead of Turpentine, as often as you see spots begin to dry on the surface until it becomes clear, and transparent like glass.

When your picture is well dried, paint it on the wrong side, following your boundary lines as designated by your Engraving or Lithograph, using Artist Colors and Brushes. Colors used according to the nature of your design and scenery in the picture. In painting the figure of a person in a picture, first paint the eyes

and let them dry; then the flesh color which you make as follows: Naples Yellow, Scarlet Lake, and White, mixed together.

Lay your colors on heavy, and mix Damar Varnish with them as you lay them on. When framed, varnish on the right side with Grecian Varnish.

Crystal Painting.—First draw or get your pattern on paper, such as Flowers, Vases of Fruit, etc. Then, with Wafers or otherwise, fasten the same to the glass, so as to prevent its moving—the pattern, of course, on the under side. Then, with a Pen or a Fine Pencil Brush, trace all the outlines of your picture, such as the leaves, stems, flowers, etc. on the glass, over your pattern, using Asphaltum Varnish, and Lampblack mixed, (adding a little Turpentine, if too thick.) This done, fill all the background of your picture, and spaces not occupied by leaves, stems, flowers, etc., with the same, when you want a black background; but if any other color is desired, paint it with other colored paints. When your ground work is dry, then paint your flowers, leaves, stems, etc., their respective colors, using: For Red—Scarlet or Crimson Lake; for Yellow—Yellow Lake; for Brown—Burnt Sienna; for Blue—Prussian or other Blues; for Green—Yellow, Lake, and a little Blue mixed; for White—Silver White or Flake White; for Purple—Scarlet Lake and Blue, mixed. Lay your colors on thin, and mix them with Damar Varnish. Shade with extra coats after the first becomes dry. After all is well dried, crinkle Copper or Tin Foil, and cover the back of your picture with the same, as you frame it. This will give it the required spangle.

Celestial and Italian Painting.—First, take the Engraving or Lithograph you wish to transfer to glass, and cut the margin off around your picture, in any shape you desire it. Then lay your picture in a Pan of Clean Water until it sinks, after which, remove it and lay it between papers, so as to absorb most of the moisture. This done, clean your glass well, and varnish with a heavy coat of Pure Damar Varnish, the size of your picture,

and in the place where you want it on the glass. Lay the glass level and let the varnish flow, and when it has remained long enough to become tacky, that is, so it will not run, then lay your picture on the table with the face side up, and hold your varnished glass over it, with the varnished side down, in the place where you want the picture, laying it down carefully, pressing it lightly. This done, take a piece of dry paper and lay on your picture, where you see blisters or air bubbles, and press them from the centre of your picture outwards. These must be pressed out, until there is none to be seen between the paper and glass. You must always keep a Slip of Dry Paper between your finger and the picture, or you will roll up the paper and spoil the same.

This done, set it aside and let it remain until the varnish is dry and hard. After this, dampen the picture with water, and rub it with your finger until all the paper is removed but the print; this you will see by its being dark colored. Then varnish again with Demar Varnish, until clear as the glass, which generally requires but one coat.

This done and dried, paint the same as you do the crystal painting, on the back, and cover with Tin or Copper Foil, using the same transparent colors, and laying them on in the same manner.

For the Italian, paint on the back the same as the Grecian, and with opaque colors, and use no foil. You can make all transparent colors opaque by mixing them with white.

Durable Outdoor Paint.—Take any quantity of Charcoal and pulverize it finely; then add a sufficient quantity of Litharge to serve as a drier, and levigate well with Linseed Oil. A good black paint is thus produced, to which if there be yellow ochre added, an excellent green will ensue, which is preferable to the bright green used by painters, for all garden work, and does not fade in the sun. This composition was first used by Dr. Parry, of Bath, on some spouts, which, on being examined fourteen years after its application to them, were found to be as perfect as when first put up.

Cheap Paint for Barns, &c.—Take 12 pounds of Melted Pitch, 1 quart of Linseed Oil, and 2 pounds of Brick Dust, or Yellow Ochre. Mix.

Lead Colored Paint to Protect Iron.—Take any sufficient quantity of Common Lithrage, and place it over a Fire in a Shovel; afterward, when sufficiently warm scatter over it a little Flour of Brimstone, which will instantly convert it into a blackish color, and which, when Ground in Oil, makes a good dark lead color. It dries quickly, gets remarkably hard, and resists the weather better than any lead color.

Cheap White House Paint.—Take Skim Milk, 2 quarts, 8 ounces Fresh Slacked Lime, 6 ounces Linseed Oil, 2 ounces White Burgundy Pitch, 3 pounds Spanish White. Slake the lime in Water, expose it to the air, and mix in about a quarter of the milk; the oil in which the pitch is previously dissolved, to be added, a little at a time; then the rest of the milk, and afterwards the Spanish White. This quantity is sufficient for 30 square yards, 2 coats, and costs but a few cents. If other colors are wanted, use, instead of Spanish white, other coloring matter.

Japan Black.—Fine Asphaltum $1\frac{1}{2}$ ounces, Boiled Linseed Oil 2 quarts, Burnt Umber 4 ounces. Heat together until they are incorporated; remove from the fire; and when sufficiently cool add as much Spirits of Turpentine as will bring it to a proper consistency.

Quick Drier.—12 parts of Shellac, and 4 parts of Borax are added to 100 parts of Water; heat is carefully applied, while the mixture is continually stirred, and soon a complete solution is obtained which is colorless or brown according to the color of the shellac employed. This solution forms a varnish perfectly impermeable to water, and not acted on by the atmosphere. It can be used with oil paints, to make them dry quickly, by adding an equal part of the Varnish with a little Turpentine to the oil color, and rubbing them together until a homogeneous fluid mix-

ture is obtained. This mixture dries in from 10 to 15 minutes, and hence only a small quantity must be prepared at a time.

A Few Hints About Mixing Paints, &c.—ASH COLOR is produced by mixing White Lead and Lampblack. If a DEEP ASH COLOR is desired, add more Black. If a LIGHT ASH, use only a small quantity of Black.

LEAD COLOR is made by mixing Indigo and White Lead.

WHITE OAK COLOR is made of Umber and White Lead.

FLESH COLOR is produced by judiciously mixing White Lead, Lake, and a little Vermillion.

BUFF is made by mixing Yellow Ochre and White Lead.

LIGHT WILLOW GREEN is made with Verdigris and White.

GRASS GREEN is made by mixing Verdigris and Yellow Ochre.

CARNATION is produced by mixing Lake and Pink.

A RICH BROWN is made from Vermillion Black, and a small quantity of Yellow.

TIMBER COLOR is made by mixing Spruce Ochre, White Lead, and a little Umber.

BRICK COLOR is made with Red Lead, a little White, and Yellow Ochre.

STRAW COLOR is produced by an admixture of White Lead and a little Yellow Ochre.

OLIVE WOOD is imitated with Ochre and a little White, veined over with Burnt Umber.

WALNUT is imitated by using Burnt Umber and White, veining it over with the same color, and touching the deepest places with Black.

All paint intended to show a pure White, should have about one-quarter of an ounce of Prussian Blue mixed with every 2 pounds of White Lead. Without this blue the lead would appear as a stone color, and not white. Instead of all linseed oil, use half only, and let the other half be Oil of Turpentine.

When any kind of Paint has been mixed, and for any reason is to be put by for some time before being entirely used, it is a good plan to cover the vessel containing it closely, as thereby it will be prevented from drying, even in the hottest season.

As soon as you are done working with Paint Brushes and Pencils, wash them out clean, first in Linseed Oil, and then in Warm Soap Suds. It will do to keep them steeped in Oil or Water only, if but a short time is to elapse before they are to be used again. Permitting oil or paint to dry in the brush or pencil, will make it worthless.

Process for Painting on Glass.—Take Good Clear Rosin, any quantity, melt it in an Iron Pot; when melted entirely, let it cool a little, and before it begins to harden, pour Oil of Turpentine sufficient to keep it liquid when cold. In order to paint with it, let it be used with colors ground with Oil, such as are commonly sold in color shops.

A Fine Mahogany Stain.—Soctrine Aloes 1 ounce, Dragons' Blood half an ounce, Alcohol 1 pint. Dissolve, and apply 2 or 3 coats to the surface of the wood. Finish off with Wax or Oil tinged with Alkanet.

To Stain Wood to Resemble Mahogany.—Take 1 gallon of Water, 3 ounces of Logwood, 4 ounces of Madder, boil, and brush on while hot, and, before it dries, streak with Black to vary the grain. This imitates Honduras mahogany.

To Color Horn Black.—A process recently discovered for imparting a rich black color to horn, without the aid of heat, consists in taking the articles, finished and ready for polish, and immersing them in a Ley of Caustic Potash, or Soda, until the outer surface of the horn is somewhat dissolved, as shown by a greasy feel. With care, even fine-tooth combs can be treated in this way without any injury. The articles are then washed off and dipped in aniline black, slowly dried, and then washed again with soft water. By transmitted light the horn is now of a dark brown color, but, by reflected light, it is a deep black.

To Give a Beautiful Red Color to Ivory, Horn, and Bone.—Take 4 grammes of Picric Acid, dissolve same in 250 grammes of Boiling Water. When cold, add 8 grammes of Strong Liquid Ammonia. Dissolve also 2 grammes of Magenta in crystals in 45 grammes of Alcohol. Dilute with 375 grammes of Hot Water, and add 50 grammes of Ammonia. As soon as the red color of the magenta has disappeared, the two solutions are mixed together, making the bulk of the liquid about a pint. Ivory and bone should be placed in a Very Weak Nitric or Muriatic Acid first, before being immersed in the ammoniacal solution. Wood cannot be dyed in this liquid unless it has been previously coated with a paste made of flour. The desired color does not appear until the ammonia has evaporated.

To Dye Cotton Yarn Yellow.—Use 103 pounds of Cotton. Boil for 1 hour, 10 pounds Sugar of Lead, and $5\frac{1}{2}$ pounds Litharge; prepare Jars, one with Cold, the other with Warm, Water. In the first put the above solution, and in the second $10\frac{1}{2}$ pounds Bichromate of Potash. Handle first in the sugar of lead, wring, handle in the bichromate, wring, repeat this operation. When the bath of bichromate is drawn off for the second time, take out the cotton without wringing it, and add to the bath a few glasses of Hydrochloric Acid, till the cotton is perfectly smooth. Wring it, and wash it well.

Powders to which Aniline Colors are Added.—Dissolve, in half a kilogramme of 95 per cent. Alcohol, 10 grammes of Copal Resin, and 1 gramme of Magenta Red; filter the Solution, and incorporate therein afterwards, so much Dry Starch as will form a friable uniformly colored mass. The mixture is dried in a properly-constructed Drying Apparatus, and next ground to powder. When a violet tinge is desired, only half the quantity of Magenta Red is applied, and the other half replaced by Ultramarine. The addition of Copal has the effect of fixing the coloring matter to the starch.

To Make Aniline Colors Soluble in Water.—A

Solution of Gelatine in Acetic Acid of about the consistency of syrup is first made, and the Aniline Color in fine powder is gradually added, stirring all the time so as to obtain a homogeneous paste. The mixture is then to be heated over a Water-bath to to the temperature of boiling water, and keep at that heat for some time. Colors in this state, if a Very Clear Gelatine is employed, will be applicable to many decorative purposes. Book-binders, paper-stainers, and printers will find them useful. They may also be used to color confectionery and soap.

Aniline Red (Fuchsine) for Wool.—Place Fuchsine

Crystals in a Stone Jar, and pour upon each part of the same 100 parts of Boiling Water, stirring continually until all is dissolved, and set aside to cool and filter through Paper, Muslin, or Flannel. For 100 pounds of woolen goods (flannels, yarns, etc.) 5 ounces of fuchsine will give a fair middle shade. For use, a quantity of Water, which more than covers the goods to be dyed, is heated to 165° or 170° Fahrenheit, and as much of the Dissolved Dye added as will produce the desired shade. The goods should then be placed in the Bath, stirred well to prevent streaks, and removed in half an hour, when they will be found completely dyed. They should then be freed from water by an Ordinary Clothes Wringer. On a large scale, this is done in a Centrifugal Machine.

The same bath may be used continually for a whole day, by adding more of the Fuchsine Solution; but it should not be kept over night.

To Dye Cotton with Aniline Red.—For every 10 pounds of goods, make a decoction of 1 pound of Sumach in sufficient Water, in which the goods are left for 2 hours, being turned a few times. They are then to be well wrung and dyed in a Tepid Fuchsine Bath, like woolen goods; but the time for dyeing may be reduced to a quarter of an hour.

To Dye Cotton a Brilliant Red.—A very bright red may be produced on cotton goods by the following process:—

For every 5 pounds of cotton goods, dissolve half an ounce of Soap in Hot Water; let the solution down to about 90° F., and then add 2½ ounces of Olive Oil. This mixture, well stirred, should be put into Tepid Water, in which the goods should remain for 5 minutes, being turned 5 or 6 times, when they should be removed and wrung out. Next, for every 5 pounds of goods, a Bath of one-quarater of a pound of Sumach should be prepared, in which the goods are turned 5 or 6 times when they should be removed and 1 ounce of Tin Crystals added to the same. The goods are then to be returned, turned over a few times, wrung out, and finished in a Tepid Water Bath, in which a sufficient quantity of the Fuchsine is dissolved to give the desired shade.

To Dye Purple with Violet Aniline.—In a Covered Stone Jar, through the cover of which a Stick passes for the purpose of stirring, 1 pound of the Aniline is dissolved in 2½ gallons of 95 per cent. Alcohol, the jar being placed into a Pot containing Boiling Water, its contents continually stirred, while they boil for 10 minutes, when it should be removed from the Water-bath, and 2½ gallons of Alcohol added. This solution, after it is cool, must be filtered like the aniline. If left to stand over night, it has to be filtered again, to prevent crocking or rubbing off of the color from the goods. One-half or three-fourths of an ounce of violet will give a good middle shade to 10 pounds of wool, which should be dyed as follows:—For every 100 pounds of goods, add to the Water-bath, brought to the boiling point, 2 pounds of Oxalic Acid, and one-third of the Dissolved Dye, necessary to give the desired shade. After boiling a minute, stirring well, put in your goods keep to the boiling point for 10 or 15 minutes, stirring well, then take them out, add to the bath 1½ to 3 pounds of Sulphuric Acid, and the rest of the Concentrated Violet Solution, and dye again for half an hour, keeping to the boiling point. After washing in Cold Water, the goods should be wrung. The bath should taste slightly sour. The more sulphuric acid that is used, the more blueish the shade will become. Should it have become too blue, Cold Water should be added to the bath, to

bring it down to 95° F., when a little Fuchsine may be added, and the shade be made more reddish.

Hoffman's Violet may also be used for shading off in place of fuchsine; but then the bath has to be kept at the boiling point. Should a very reddish shade of purple be desired, the blueish purple should be dyed first very light, and the goods brought into a New Boiling-bath of Fuchsine, where they can be shaded off to any degree. The more reddish the tint desired, the lighter the purple has to be dyed in the first place, while a long boiling in the fuchsine-bath is necessary to produce an *even* shade. If the time is shortened too much the goods are liable to appear streaky.

At least one half of the violet-bath should be renewed every day.

To Dye Cotton Violet.—Prepare the goods for Fuchsine, as directed before, and turn them over a few times in a Tepid Solution of 2½ ounces of Crystallized Perchloride of Tin, for every 10 pounds of the goods. Remove the latter, add as much Violet Solution as the shade requires, dye for a quarter of an hour, wring well, and dry. Washing in a Solution of Alum and Starch will render the color more solid.

To Dye Cotton Blue Violet.—Place the goods in a Bath, prepared with 1 pound of Nitrate of Iron, and 4 ounces of Tin Crystals, for every 20 pounds of goods. After a few minutes remove them to another bath composed of Prussiate of Potash 10 ounces, Sulphuric Acid 8 ounces, wherein turn them around a few times, and remove them to another Bath of Tepid Water, from which again they are to be removed after a few turns, when the following mixture is added to the same:—One pound of Olive Oil, and 2 ounces of Sulphuric Acid are stirred together, 2½ ounces Alcohol added, then some Hot Water and the whole well and evenly mixed. After a few more turns of the goods, they should be wrung and dyed for 15 minutes in a Tepid Bath of *Reddish Violet*, and half a pound of Alum.

Hoffman's Violet or Purple.—A Solution is made as of other Violets. Goods are dyed as with fuchsine, except that the use of acids is entirely dispensed with, while the boiling point of the Bath must be kept up.

Another Process of Dyeing a Fast Violet.—Add to the Bath for every 100 pounds of goods, one-third of the Solution of Violet, 8 pounds of Alum, 3 pounds of Argols, $1\frac{1}{2}$ pounds of Crystalized Perchloride of Tin, two-thirds of a pound of Sulphuric Acid, when the process is conducted in the same manner as the forgoing mode of dyeing violet, the remaining two-thirds of the latter being added subsequently.

To Dye Aniline Blue.—Aniline Blue is dissolved and used for dyeing like the violet. But they both must not be too sour, and should be prepared fresh every day.

If blue is dyed, as in the second receipt given whereby to dye with aniline violet, three-fourths of a pound of Crystalized Perchloride of Tin should only be used.

To Dye Cotton with Aniline Blue.—For Pure Blue prepare the goods for fuchsine and dye, like violets. For a Greenish and Dark Blue, dye in a Bath of Prussiate of Potash and Sulphuric Acid, as mentioned in the receipt for dyeing cotton with blue violet. For very dark shades, place the goods subsequently into a New Tepid Bath containing 4 ounces of Perchloride of Tin, for every 20 pounds of goods.

To Dye Wool Aniline Scarlet.—For every 40 lbs. of goods, dissolve 5 pounds of White Vitriol, at 180° F.; place the goods into the Bath for 10 minutes, then add the Color, prepared by boiling for a few minutes, 1 pound of Scarlet in 3 gallons of Water, stirring the same continually. This Solution has to be filtered before being added to the bath. The goods should remain in the latter 15 minutes, when they will have become browned, and are then to be boiled for another half an hour in the same bath, after the addition to it of Sal Ammoniac, the more of which being added, the redder the shade will be.

To Dye Wool Iodine Green.—Of this beautiful Aniline Green, 1 pound is boiled for 5 minutes in 3 gallons of Alcohol, the strength of which must be reduced to 60 per cent. by Water. This Solution is poured into a Bath containing some Acetic Acid and Acetate of Soda, and the goods dyed in the same at 100° F., until an even shade is obtained, when a Solution of Castile Soap will heighten the brilliancy of the color.

To Dye Cotton with Iodine Green.—The cotton has to be taken through a Bath of Boiling Water; then through one of Castile Soap; and then dyed in a Lukewarm Bath containing Tannin, the color being shaded off with Picric Acid or Fustic.

To Dye with Aniline Yellow.—Dissolve by boiling in Water. For dyeing Silk, add to the Bath Acetic or Sulphuric Acid in small quantity, and dye at 170° F. For Wool, dye the same way, but add Oxalic or Sulphuric Acid. If Aniline Yellow is shaded off with Fuchsine, every shade from orange to scarlet may be obtained.

The Use of Picric Acid for Dyeing.—This acid yields a Canary Color different from the golden yellow of the aniline yellow, which, by the way, is not made from aniline, but from naphthaline. For Green and Drab Colors on wool and silk, Picric Acid is of the greatest value, as it dies an even shade, not obtainable with other dyes. It also affords facilities for nice shading off, and makes a brilliant color.

For Green, take the goods through a Bath soured with Sulphuric Acid and Alum, to which, subsequently, Picric Acid and Indigo Extract is to be added.

For Drab Colors on Wool, the Bath is to be soured with some Glauber Salts and Sulphuric Acid, the alum being omitted, the Picric Acid being added, together with the Indigo, Orchill, or Cudbear.

For Family Dyes, those Mordants should always be added in the right proportion to the Solution of the Aniline, to render its

use simple. Perfection in this manner can at best only be approached—seldom entirely realized.

Druggists' Transparent Colors.—**BLUES.**—1. Dissolve 1 ounce of Vitriol in 1 quart of Water, add the same quantity of Alum, and afterward a little Oil of Vitriol. 2. Dissolve the Sulphate of Indigo in Water. 3. Dissolve Prussian Blue in Water. 4. Dissolve Blue Stone in Water, and add Spirits of Hartshorn.

PURPLES.—1. Verdigris 2 drachms, Spirits of Hartshorn 4 ounces, Water $1\frac{1}{2}$ pints. 2. Sugar of Lead 1 ounce, Cochineal 1 scruple, Water to fill up.

GREENS.—1. Dissolve Common Verdigris in 3 ounces of Oil of Vitriol, and add 2 quarts of Water. 2. Add Distilled Vinegar and Blue Vitriol to a Strong Decoction of Turmeric.

REDS.—1. Spirits of Hartshorn colored with Cochineal. 2. Carmine dissolved in Water, to which a little Muriate of Tin may be added. 3. Boil Red Beet, dilute it to color, and brighten with a little Acetic Acid. 4. Dissolve Sal Ammoniac in Water, and tinge with Cochineal.

YELLOWS.—1. Dissolve Iron in Muriatic Acid and dilute. 2. Dissolve Indian Yellow in Water. 3. Pour Hot Water on Turmeric, and filter through Paper. A little of any Alkline will turn this to a Brown.

To Make Durable Colors for Show Bottles.—To 1 gallon of Clear Water, add—

For **YELLOW**—Bichromate Potassa 4 drachms, Nitric Acid 1 ounce.

For **ORANGE**—Bichromate Potassa 4 ounces, Nitric Acid 1 oz.

For **ORANGE (2)**—Cochineal 1 drachm, Alum 4 drachms, Sulphuric Acid 1 ounce.

For **LIGHT BLUE**—Sulphate of Copper 16 ounces.

For **DARK BLUE**—Sulphate of Copper 1 ounce, Spirits Ammonia 4 ounces.

For **PURPLE**—Sulphate of Copper 4 drachms, Spirits of Ammonia 8 ounces.

For GRASS GREEN—Sulphate of Copper 4 ounces, Sal Ammoniac 4 ounces.

For SEA GREEN—Acetate of Copper 4 drachms, Acetic Acid 4 ounces.

For PEA GREEN—Nickel 2 drachms, Nitric Acid 1 ounce, Bichromate Potassa half a drachm.

For OLIVE GREEN—Subcarbonate of Iron 1 ounce, Muriatic Acid 4 ounces; solve, and add Sulphate of Copper 8 ounces.

For DARK GREEN—Sulphate of Copper 4 drachms, Spirits of Ammonia 4 ounces, Bichromate of Potassa a sufficient quantity.

For PINK—Oxide Cobalt 1 drachm, Nitric Acid 6 ounces; solve.

For BRIGHT RED—Powdered Cochineal 1 ounce, Alum 1 oz., Cream Tartar 4 drachms, Boiling Water 1 pint; macerate for 15 minutes, strain, and add 1 ounce of Sulphuric Acid.

For DARK RED—Iodide of Potassa 1 ounce, Alum 1 ounce.

For BLOOD RED—Cobalt Metal 1 ounce, Nitric Acid 4 ounces Digest for 24 hours, and add Spirits of Ammonia 10 ounces, and Alum 4 drachms.

To one gallon of Alcohol, add—

For YELLOW—Subcarbonate of Iron 1 ounce, Muriatic Acid 2 ounces. Solve.

For PINK—Cochineal 1 drachm; or Santalum 10 grains.

For PEA GREEN—Blue Vitriol and Salt each 2 ounces.

For PURPLE—Blue Vitriol 4 drachms, Spirits Ammonia 4 ounces, Water 1 pint.

For BLUE—Dilute the the Purple with Dilute Alcohol.

For RED—Cochineal 2 ounces, Bitart. Potassa 4 drachms, Boiling Water 1 pint, Sulphuric Acid 2 ounces.

The above should stand three weeks exposed to light, and then be filtered.

Colors for Artificial Flowers.—For BLUE—Sulphate of Indigo in solution.

For YELLOW—Tincture of Turmeric.

For RED—Carmine dissolved in a Solution of the Carbonate of Potash.

For LILAC—A Solution of Litmus.

For VIOLET—The Lilac, mixed with Blue.

When the flowers are made of Muslin or Paper, they may be dipped in these colors; but, when made of Velvet, they should be colored by the finger dipped in the dye.

To Prepare Zinc Paint.—The ordinary boiled linseed oil should be replaced, in the mixing operation, by one prepared by gently boiling 100 pounds of the Raw Oil for 5 or 6 hours, then adding about 12 pounds of Coarsely Broken Lumps of Binoxide of Manganese, and continuing the boiling operation for about 10 hours longer. In this manner a rapidly drying linseed oil is obtained, which is eminently fit for the purpose of being used with Zinc White and other Zinc Paints. Much, however, depends upon the use of Old Linseed Oil, and also upon the pains taken with the Boiled Oil, which, unless carefully kept from the contact of the air, becomes thick in a short time. The boiled oil, so prepared, is not to be used alone in painting with zinc white, but must be mixed with from 3 to 5 per cent. of Raw Linseed Oil, while the paint is being mixed together.

WRITING INKS, FLUIDS, ETC.

Carmine Writing Ink.—Pure Carmine 20 grains, Strong Spirits Ammonia half a drachm, Gum Arabic 20 grains, Distilled Water 3 ounces.

Beautiful Carmine Ink.—Take Best Quality of Nankarat Carmine 4 grains, Rain Water 1 ounce, Water of Ammonia 40 drops. Shake them together well, and you will have an ink that is far superior to that usually sold, for ledger rulings and bank purposes.

To Make Carmine.—Boil 1 pound 4 ounces of Ground Cochineal, and a very little of the Carbonate of Soda in 4 gallons of Soft Water for 20 minutes; then take it from the fire, and add 6 drachms of Alum, and stir the mixture for a few minutes, and let it stand for a quarter of an hour for the dregs to subside; then run off the clear liquid; strain the sediment through a fine Sieve or Cloth; and then, when cold, add the White of 2 Eggs with the sediment; Fish Glue or Isinglass will answer as well as the eggs. The Muriate of Tin may be used instead of alum. The weight of the cochineal may be reduced to any amount to make a small quantity if the proportions are preserved.

Red Ink.—To 12 grains of Carmine add 3 ounces of Aqua Ammonia, and heat gently, without boiling, for 7 or 8 minutes; then add 18 grains of Gum Arabic, stirring constantly. It must be kept well corked.

Another Recipe for Red Ink.—Add 2 ounces of Powdered Brazil Wood to 1 pint of Water, and boil it down to half the quantity; then add half an ounce of Gum Arabic, $1\frac{1}{2}$ drachms of Tincture of Cochineal, and $1\frac{1}{2}$ ounces of Alcohol.

Binders' Red Ruling Ink.—Take 1 ounce of Carmine and dissolve in 1 gallon of Water. Then add Sal Ammoniac to prevent precipitation.

Violet Ink.—Take half an ounce of Aniline Violet, and digest it in 5 ounces of Alcohol in a Glass, or Enamelled Iron Vessel for 3 hours; then add 1 full quart of Distilled Water, and heat gently for several hours, or until the odor of the spirit has disappeared; then mix in 2 drachms of Gum Arabic dissolved in half a pint of Water, and allow the whole to settle. Experiment will determine the precise quantity of coloring matter that will be required.

Blue Writing Ink.—Take Soluble Prussian Blue, and Oxalic Acid, equal parts; powder them finely; then add Soft Water to bring them to a thin paste. Let the mixture stand 2 or 3 days, then add more water until the desired shade of blue is obtained.

Fine Blue Ink.—Take of Yellow Prussiate of Potassa 10 parts, dissolve in 160 parts of pure Distilled Water; gradually, and while stirring, add to that solution a mixture of 5 parts of a Solution of Perchloride of Iron, (sp. gr. 1.480) and 160 parts of Water. The ensuing precipitate is collected on a filter, and washed with distilled water until the wash-water begins to assume a blue color, after which the precipitate is dissolved in 50 parts Distilled Water, and 2 parts Powdered Gum Arabic added.

Congress Ink, an Unfading and Superior Black Writing Ink.—Bruised Aleppo Nutgalls 1 pound, Sulphate of Iron, or Copperas, 4 ounces, Sulphate of Copper half an ounce, Burnt Sugar 3 ounces, Gum Arabic 4 ounces, Perchloride Mercury 10 grains, Rain Water 1 gallon. Mix. Macerate two weeks, stir occasionally, and filter.

A Cheap Black Ink.—Take of Chipped Logwood 8 pounds, Water 8 gallons. Boil three-fourths of an hour, and add 2 ounces Bichromate of Potassa. Costs about 5 cents a gallon.

Prof. Stratton's Parchment Ink.—Half a pound of each, Pulverized Copperas and Honduras Logwood, 1 pound of Best Aleppo Nutgalls, 4 ounces of Gum Arabic, and 2 gallons of Rain Water. First boil the galls in the water until the strength is out; then add and boil the other articles. As much additional water may be added as the mixture will bear. Let it settle, and strain before bottling. This makes a deep, beautiful, and enduring ink, particularly good for engrossing on parchment, but also an excellent writing ink for ordinary purposes.

Runge's Black Writing Fluid.—Boil 22 pounds of Logwood in enough Water to yield 14 gallons of decoction. To each 1,000 parts add 1 part of Yellow Chromate of Potash. Stir the mixture, and strain.

To Make a Good Bright Black Ink Cheaply.—Logwood Shavings 2 pounds, Alum 4 scruples, Gum Arabic 4 scruples, Water 32 ounces. Boil them together for three-quarters of an hour, and filter when cool.

To Make Writing Ink Quickly.—Take Tannic Acid, and Gallic Acid, each 20 grains; dissolve in 2 ounces of Water. Crystalized Sulphate of Iron, and Crystalized Sub-sulphate of Iron (Monsel's Salt), each 15 grains; dissolve in 2 ounces of Water. Mix the two solutions, and add $2\frac{1}{2}$ fluid drachms of Mucilage, and 2 drops Oil of Cloves. The above ink is not particularly the cheapest, costing about \$1 per gallon, but for use requiring permanency it is to be preferred to any other.

To Make Aniline Writing Fluid.—Dissolve 15 parts Dry Aniline (either Red, Blue, Green or Yellow) in 150 parts of Strong Alcohol. Then add 1,000 parts of Distilled Water; heat gently until the odor of the Alcohol is dissipated, and add a Solution formed of 60 parts Gum Arabic and 250 parts of Water.

Non-corrosive or Indestructible Ink, for Important Writing.—Take 50 grains of Powdered Copal, and let them be dissolved in 400 grains of Oil of Lavender, by the assistance of a Gentle Heat, and then mix with the Solution 5 grains of Lamp-black, and 1 grain of Indigo. This ink is particularly useful for labelling bottles, or articles containing corrosive elements.

An Excellent Ink Powder.—Powdered Nutgalls $6\frac{1}{2}$ ounces, Powdered Sulphate of Iron 4 ounces and 6 drachms, Powdered Alum 2 drachms, Powdered Gum Arabic 6 drachms. The ingredients here given will make 3 pints of excellent ink, by adding thereto that quantity of Soft Water.

Copying Ink.—Dissolve half an ounce of Gum Arabic, and 20 grains of Spanish Licorice, in 13 drachms of Water, and add 1 drachm of Lampblack, previously mixed with a teaspoonful of Sherry Wine.

Another.—Common Black Ink 3 parts, Sugar Candy 1 part. Dissolve.

Velvet Ink for Cloths.—Take Chloride of Gold 45 grains, Distilled Water 1 ounce, Chloride of Tin in solution 15 grains, Gum 20 grains. Mix the whole together.

Silver Ink.—Triturate, in a Mortar, equal parts of Silver Foil and Sulphate of Potassa, until they are reduced to a fine powder; then wash the salt out, and mix the residue with a Mucilage of equal parts of Gum Arabic Water.

Lithographic Transfer Ink.—Mastic in tears 4 ounces, Shellac 6 ounces, Venice Turpentine half an ounce. Melt together, and add Wax half a pound, Tallow 3 ounces. When dissolved, further add Hard Tallow Soap (in shavings) 3 ounces, and when the whole is combined, add Lampblack 2 ounces. Mix well, cool a little and then pour it into Moulds. This ink is rubbed down with a little Water in a Cup or Saucer, in the same way as water-color cakes. In Winter, the operation should be performed near the fire.

Indelible Ink to be Used with Type or Stencil.—Take Sulphate Manganese 2 parts, Lampblack 1 part, Sugar 4 parts, all in fine powder, and triturate to a paste with a little Water.

Splendid Indelible Ink.—Take 1 drachm of Salt of Steel, (obtained from manufacturing chemists.) 2 grains Nitrate of Silver in Crystals, and half an ounce of Fine Vermillion. Mix very fine in Linseed Oil to the consistency required. It may be used directly with either Types, Hair Pencil, or a Pen, and is, without exception, the best indelible ink now in use, and is always preferred to the black, by the ladies. The color may be varied by using Fine Lake, Prussian Blue, Mineral Green, etc. Sells well.

An Excellent Indelible Ink.—Rub up 1 drachm of Aniline Black with a mixture of 60 drops of Concentrated Hydrochloric Acid and $1\frac{1}{2}$ ounces of Alcohol. The resulting deep blue liquid is then to be diluted with a Hot Solution of $1\frac{1}{2}$ drachms of Gum Arabic in 6 ounces of Water. This ink does not corrode a steel pen, and is effected neither by concentrated mineral acids nor by strong ley. If the aniline black solution be diluted with $1\frac{1}{2}$ ounces of Shellac dissolved in 6 ounces of Alcohol,

instead of with the gum-water, an aniline black is obtained, which, after being applied to wood, brass, or leather, is remarkable for its extraordinary deep black color.

To Make Colored Indelible Marking Inks.—An ounce of Vermillion and 2 drachms of Salt of Steel must be incorporated together thoroughly, being thereby reduced to a fine powder. Then mix with them enough Linseed Oil to obtain the thickness required. This ink can be used with Types, a Hair Pencil, or a Pen, and resists the action of acids or alkalies. The color may be varied by using other positive (not fugitive) coloring matter.

Ink for Marking Linen with Type.—Dissolve 2 parts of Asphaltum in 8 parts of Oil of Turpentine, and add Lampblack or Blacklead in fine powder, in sufficient quantity to render it of a proper consistency to print with type.

Sympathetic or Secret Inks.—Mix equal quantities of Sulphate of Copper and Sal Ammoniac, and dissolve in Water. Writing done with this ink is invisible until the paper is heated, when it turns a yellow color. Lemon Juice although invisible at first, becomes black when the writing is held to the fire.

Blue Sympathetic Ink.—Make a Simple Solution of Acetate of Cobalt. Use it as you would common ink, always on a Firm Textured Paper, however, and with a Clean Quill Pen. The writing will be invisible when cold, but, on holding it before a fire, it will assume a blue tint, which will again disappear as the paper cools.

Brown Sympathetic Ink.—Use Cow's Milk as pure as when it leaves the animal. Trace the characters with a Quill Pen. When held before the fire they will assume a permanent brown stain.

Black Sympathetic Ink.—If a Solution of Nitrate of Silver be employed, the writing done with it will be invisible until exposed to the sun's rays or heat, when it will become permanently black.

Green Sympathetic Ink.—Letters written with a Solution of Muriate of Cobalt, will remain invisible until warmed before fire, when the writing will appear of a green tint, but, on cooling, disappear.

Purple Sympathetic Ink.—Write with a Weak Solution of Sulphate of Copper, using a Quill Pen, (which should invariably be employed in writing with sympathetic inks). The writing will remain invisible until it is held over the fumes of Ammonia, when it will become purple. The color may be expelled by holding it near the fire.

Yellow Sympathetic Ink.—Write or Draw with a Solution composed as follows:—Pound, and rub down some Muriate of Ammonia, and pour upon it a small quantity of the Solution of Sulphate of Copper; mix well, and filter the solution, which will then be a Muriate of Copper. When dry and cool, the characters written or drawn upon the paper will be invisible, but will turn yellow on exposure to heat.

Bright Blue Sympathetic Ink.—Write with a Solution of Sulphate of Iron. The letters will be invisible until they are brushed with a Feather or Camel's Hair Brush dipped in a Solution of Prussiate of Potash, when they will appear in a bright blue color.

Grey Sympathetic Ink.—A Weak Solution of Alum in Lemon Juice, or Tartaric Acid, will furnish an ink not perceptible until immersed in water, when it will become perfectly legible, in greyish characters.

Vegetable Sympathetic Ink.—The Juice of an Onion affords a simple and convenient ink for secret writing—being invisible when cold, but yellow when held near the fire.

How to Restore Faded Writing.—Brush the writing over with a Feather or Camel's Hair Brush dipped in the Tincture of Nutgalls. If carefully performed, this easy process will bring out the manuscript as clearly as if newly written.

PREPARATIONS FOR POLISHING AND PRESERVING LEATHER.

Oil Paste Blacking.—Take Oil of Vitriol 4 ounces, Tanners' Oil 10 ounces, Ivory Black 2 pounds, Molasses 10 ounces. Mix the vitriol and oil together, and let them stand for 24 hours. Then add the ivory black and molasses, and mix the mass into a thick paste. This will be found an excellent blacking—one that will give universal satisfaction. It will not injure leather in the least degree.

To Make Water-proof Blacking.—Take an Old Pair of India Rubber Shoes (Boots or any Old India Rubber will do); cut them up and pull off the cloth lining; put the rubber in about a pint of Neat's Foot Oil, and set it on the Stove until the rubber is entirely melted, stirring it once in a while, and don't let it boil or burn. It will take about 2 days to melt the whole. As soon as the rubber is melted, stir in half a pound of Beef or Mutton Tallow, and half a pound of Beeswax. If it is not black enough, you may add a little Lampblack.

Now, to apply it to the boots: wash them clean of mud and blacking; when they are nearly dry, apply the water-proof all over them—if the weather is cold, work near the stove. The best thing to use in applying this blacking is one's own hands, rubbing it well into the leather.

Blacking for Dress Boots.—Gum Senegal 8 ounces, Molasses 2 ounces, Ink 1 pint, Vinegar 2 ounces, Alcohol 2 ounces. Dissolve the gum and molasses in the ink and vinegar, strain, and add the alcohol.

Liquid Blacking.—Take Ivory Black 5 ounces, Molasses 4 ounces, Sweet Oil three-quarters of an ounce; triturate until the oil is perfectly killed, and then stir in gradually 1 gill each of Vinegar and Beer Lees, and continue the agitation until the mixture is complete.

Alligator Oil Paste Blacking.—Take Oil of Vitriol 2 ounces, Alligator's Oil 6 ounces, Ivory Black 1 pound, Molasses 5 ounces. Mix the vitriol and oil together, and let it stand a day; then add the other articles. Stir well. Heat the whole by a Gradual Fire; let it stand in a Cool Place, and Box.

Liquid Blacking for Shoes, etc.—Bone Black 3 ounces, Molasses 2 ounces, Sweet Oil half an ounce. Mix and form a paste. Add gradually half an ounce of Oil of Vitriol, and then half a pint of Vinegar, and $1\frac{3}{4}$ pints of Water or Sour Beer.

Another Liquid Blacking.—Take Ivory Black 1 pound, Molasses three-quarters of a pound, Sperm Oil 2 ounces, Beer and Vinegar each 1 pint; proceed as in preceding formula.

Blacking Paste.—This may be made with the ingredients of the Liquid Blacking, using sufficient Vinegar, in which a little Gum has been dissolved, to form a Paste. The addition of a little Glycerine will prevent it from becoming hard.

Liquid Bronze, for Leather, Shoes, Plaster Images, etc.—Take of Gum Shellac $1\frac{1}{2}$ pounds, Strong Alcohol 1 gallon, Best Aniline Red 10 ounces. Stir occasionally for a day or two until entirely dissolved.

India Rubber Liquid Blacking.—Take of Ivory Black 60 pounds, Molasses 45 pounds, Gum Arabic, dissolved in a sufficient quantity of Hot Water, 1 pound, Vinegar 20 gallons, Sulphuric Acid 24 pounds, India Rubber, dissolved by the aid of Heat in 9 pounds of Rape Seed Oil, 18 ounces. Mix them well together. This blacking may be applied by means of a Small Sponge, attached to a piece of Twisted Wire, like the well known Japan blacking.

Jet Black Varnish for Shoes.—Dissolve 10 parts, by weight, of Shellac, and 5 parts of Turpentine, in 40 parts of Alcohol, in which fluid should be previously dissolved 1 part of Extract of Logwood, with some Neutral Chromate of Potassa, and Sulphate of Indigo. The varnish is to be kept in Well-stoppered Bottles.

Harness Jet.—Take 4 ounces Best Glue, $1\frac{1}{2}$ pints Best Vinegar, 2 ounces Gum Arabic, half a pint Black Ink, 2 drachms Isinglass. Dissolve the gum in the ink, and melt the isinglass in Another Vessel in as much Hot Water as will cover it. Having first steeped the glue in the vinegar until soft, dissolve it completely by the aid of Heat, stirring to prevent burning. Add the ink to the gum and heat gently. Lastly, mix in the solution of isinglass and remove from fire. When used, a small portion must be heated until fluid, and then applied with a Sponge and allowed to dry on.

Varnish for Shoes.—It is a bad plan to grease the upper leather of shoes for the purpose of keeping them soft. It rots the leather, and admits dampness more readily. It is better to make a varnish thus:—Put half a pound of Gum Shellac, broken up in small pieces, in a Quart Bottle or Jug, cover it with Alcohol, cork it tight, and put it on a Shelf in a Warm Place, shake it well several times a day, then add a piece of Camphor as large as a hen's egg, shake it well and in a few hours shake it again, and add 1 ounce of Lampblack. If the Alcohol is good all will be dissolved in three days, when shake and use. If it gets too thick, add Alcohol, pour out 2 or 3 teaspoonfuls in a Saucer, and apply it with a Small Paint Brush. If the materials are all good, it will dry in about 5 minutes, and will be removed only by wearing it off, giving a gloss equal to patent leather. The advantage of this preparation over others is, it does not strike into the leather and make it hard, but remains on the surface, and yet excludes the water almost perfectly. The same preparation is admirable for harness, and does not soil when touched, as lampblack preparations do.

Polish for Enamelled Leather Shoes, &c.—Take 1 pint of Pure Sweet Cream, half a pint of Linseed Oil. Make them luke warm separately, and then mix them well together. Having previously cleaned the shoes, etc. from dirt, rub them over with a Sponge dipped in the mixture. Then rub it with a Soft, Dry Cloth, until a brilliant lustre is produced.

French Polish for Boots and Shoes.—Logwood Chips half a pound, Glue quarter of a pound, Indigo, pounded very fine, quarter of an ounce. Boil these ingredients in 2 pints of Vinegar, and 1 of Water, during 10 minutes after ebullition, then strain the liquid. When cold it is ready for use. To apply the French polish, the dirt must be cleaned from the boots or shoes; when these are quite dry, the liquid polish is put on with a Sponge.

How to Save Shoe Soles.—Melt together Tallow and Common Resin, in the proportion of 2 parts of the former to 1 of the latter. Apply the preparation, hot, to the soles of the boots or shoes. One farmer declares that this little receipt alone has been worth more than the cost of 5 years' subscription to the newspaper publishing it.

To Render Boots and Shoes Waterproof.—The following is a good mixture for this purpose. Before applying it, warm the boots a little, but take care not to hold them too near the fire:—Melt together half a pint of Boiled Linseed Oil, 2 ounces of Suet, half an ounce of Beeswax, and half an ounce of Resin.

SUPERIOR WHITENING FLUIDS.

A New White-wash.—Slack Lime in a Close Box to prevent the escape of steam, and, when slacked, pass it through a sieve. To every 6 quarts of this lime add 1 quart of Rock Salt and 1 gallon of Water. After this boil and skim clean. To every gallon of this add, by slow degrees, three-quarters of a pound of Potash and 4 quarts of Fine Sand. Coloring matter may be added if desired. Apply with a Paint or White-wash Brush. This wash looks as well as paint and is almost as durable as slate. It will stop small leaks in a roof, prevent the moss from growing over and under it, is incombustible from sparks falling on it.

A Brilliant White-wash for Walls.—Soak one-fourth of a pound of Glue over night in Tepid Water. The next day put it into a Tin Vessel with a quart of Water; set the vessel in a Lettle of Water over the fire, keep it there until it boils, and then stir until the glue is dissolved. Next put from 6 to 8 pounds of Paris White into Another Vessel, add Hot Water, and stir until it has the appearance of milk of lime. Add the Sizing, stir well, and apply in the ordinary way while still warm.

Paris white is Sulphate of Baryta, and may be obtained at most drug and paint stores.

White-wash that will not Rub Off.—Mix up half a pailful of Lime and Water in the usual way. Then add, while hot, half a pint of Flour made into Starch, to the white-wash. Stir the mixture well and use, adding more Hot Water if needed.

Brilliant Stucco White-wash.—Take Clean Lumps of Well-burned Lime, slack it in Hot Water in a Small Tub, and cover it over to keep in the steam. It should then be passed through a Fine Seive, in a fluid form, to obtain the Flour of Lime. Add a quarter of a pound of Whiting or Burned Alum, 2 pounds of Sugar, 3 pints of Rice Flour made into thin and well-boiled Paste, and 1 pound of Glue dissolved over a Slow Fire. This is a more brilliant wash than that made with Plaster of Paris, and will retain its brightness for an extremely long time. It should be applied while warm and with a Paint Brush.

VERMIN DESTROYERS, ETC.

A Powder that will drive Bed Bugs and Other Insects from its neighborhood.—Pulverized *Pyrethrum Roseatum*. Sprinkle this, by means of an ordinary Pepper-box or Dredge, where the vermin congregate. It is very effective, and possesses the advantage of being harmless to human life and to domestic animals.

Bed Bug Poison.—Muriate of Ammonia 2 ounces, Water 1 quart. Dissolve, and add Corrosive Sublimate $2\frac{1}{2}$ ounces, Muriatic Acid 2 ounces. Mix, and apply with a Small Brush or Feather.

Bed Bug Exterminator.—Take 4 ounces of White Arsenic, half a pound of White Soap, 1 ounce of Camphor dissolved in a little Rectified Spirits, and mix the whole into a Paste having the consistency of cream. Place this mixture in the openings and cracks of the infested bedstead.

A New Rat Destroyer.—Take equal proportions of Powdered Squills and Strong-scented Cheese. Incorporate them well together. When eaten by rats and mice it kills them.

To Exterminate Rats and Mice.—Mix equal parts of Finely Powdered Gypsum, Sugar, and Flour, well together, putting a few drops of the Oil of Rhodium in the mixture toward the end. Put it in the places infested by vermin, and have a vessel containing Water near by. The rats and mice will readily devour the preparation, and then drink; whereupon the plaster they have swallowed will become solid in their stomachs, causing death soon afterward.

To Kill Lice on Stock of All Kinds.—Take 1 oz. of Coccus Indicus and steep it in 1 gallon of Water. Wet the cattle or other animals thoroughly with the liquid, and the vermin will soon disappear. It may also be successfully used to kill lice on Poultry, Birds, etc., by dipping them into it, keeping the heads out, and soaking well. It is perfectly safe.

To Destroy Caterpillars.—Boil 1 pound each, of Tobacco, Rue, and Wormwood in Water. Make a Very Strong Decoction. Sprinkle it on the leaves and young branches every morning and evening during the period when the fruit is ripening.

To Prevent Injury from Moths.—Macerate 2 ounces of the Powdered Shells of Red Pepper, and the same quantity of Gum Camphor in 16 ounces of Strong Alcohol, for several days,

and then Strain it. With this tincture the Furs or Cloths are to be sprinkled over, and then wrapped up in Linen Cloths or Sheets. Instead of the pepper, Bitter Apple may be used, if preferred. In Europe this tincture (known as the Chinese Moth Mixture) is extensively employed during the warm season.

To Keep Away Mosquitoes from Beds.—Tie a Sponge or Piece of Old Flannel well saturated with Carbolic Acid to the Headboard of the Bedstead. It is an effectual means of driving away those nocturnal pests. The writer has not found it necessary to use a mosquito-net for eight years by using this acid.

A Simple Way to Get Rid of Roaches.—Strew about the places they infest, slices, or the parings of, Green Cucumbers. Let this be done at night, removing the pieces in the morning. A few repetitions of this method will effectually destroy, or disperse, cockroaches.

An Excellent Powder to Kill Roaches.—Take Red Lead 4 ounces, Flour 1 ounce, Powdered Sugar 1 ounce. Mix the ingredients well. Use by placing some on pieces of paper. Cats and dogs will not touch it.

Rat Paste.—Phosphorus 1 ounce, Glycerine 8 fluid ounces, Starch 4 ounces, Flour 1 pound, Water 28 fluid ounces. Make a Paste by boiling all the ingredients except the phosphorus together. When it is of a proper consistency, add the phosphorus previously dissolved in Warm Water.

POPULAR BEVERAGES, ETC.

Cider Champagne.—Good Cider 10 gallons, Rectified Spirits half a gallon, Good Sugar 3 pounds. Mix, and let them rest for 12 or 14 days; then fine with Skimmed Milk 1 pint. This, put up in Champagne Bottles, Silvered, and Labeled, has often been sold for champagne. It opens very sparkling.

A Good Imitation of Sweet Cider.—Take Water 50 gallons, Honey 10 quarts, Powdered Catechu $1\frac{1}{2}$ ounces, Alum $2\frac{1}{2}$ ounces, Yeast 1 pint. Ferment in the Sun, or, if that cannot be done conveniently, in a Warm Place, for 15 days. Then add 4 ounces each of Bitter Almonds and Cloves, 1 pint of Burnt Sugar and $1\frac{1}{2}$ gallons of Whiskey. If it shall have become too acid, use sufficient additional Honey or Sugar to correct it. If too sweet, the addition of Pure Cider Vinegar will give the required acidity.

Cheap Imitation Cider.—18 gallons of Water, enough Sulphuric Acid to give the water an agreeable tartness, 25 pounds of Sugar, 2 ounces of Alum, $2\frac{1}{2}$ ounces of Ginger, $2\frac{1}{2}$ ounces of Cloves, 3 ounces of Bitter Almonds. Boil the last four ingredients in 1 gallon of the water for a couple of hours, strain the Decoction, and add it to the remaining water. If Whiskey be added to it, it will give more body.

Sarsaparilla Mead.—2 pounds of Spanish Sarsaparilla boil in Water 5 hours, so as to strain off 4 gallons; add 32 pounds of Sugar, and 8 ounces of Tartaric Acid. Half a wine-glass of Syrup to half a pint tumbler of Water, and 1 teaspoonful of Soda Powder, is a fair proportion for a drink.

Spruce Beer.—Take 8 ounces of Hops, boil them half an hour in 2 gallons of Water, strain, and add 32 gallons of Warm Water, 4 gallons of Good Molasses, 16 ounces Essence of Spruce, dissolved in 1 quart of Water. Put the mixture into a Large Clean Cask, agitate it well by stirring, add 1 pint of Good Baker's Yeast, let it stand and ferment for 1 week, unless the weather be quite warm, when a shorter time will suffice. When it is drawn off, put 1 spoonful of Molasses or a Large Raisin in each bottle, which, when filled, should have its Cork secured with Strings.

A Good Spruce Beer.—Boil 2 handfuls of Hops, and 4 handfuls of the Chips of Sassafras Root, in 20 gallons of Water; Strain it, and pour on, while hot, 2 gallons of Molasses, 4 spoonfuls of the Essence of Spruce, 4 spoonfuls of Ginger, and 2 spoonfuls of

Pounded Allspice. Put it into a Cask, and, when cold enough, add 1 pint of Good Yeast. Stir it well, and stop it close. when clear, Bottle and Cork it.

English Ginger Ale.—Refined Sugar 3 pounds, Bruised Jamaica Ginger 2 ounces, Cream Tartar 1 ounce, Sliced Lemons 2 to 4, Boiling Water 4 gallons, Yeast 8 ounces. Pour the water on the first four ingredients, then strain, and add the yeast. When fermentation has continued for a few hours, bottle. The corks must be secured with Twine or Wire. Fit to drink within 6 to 12 hours after bottling. The filled bottles should be laid on their sides in a cool place.

Ginger Ale Powders.—Take Fine Powder of Jamaica Ginger 4 drachms, Bicarbonate Soda $3\frac{1}{2}$ ounces, Refined Sugar in Powder 14 ounces, Essence of Lemon 30 drops. Mix, and divide into 60 Powders, which put into Blue Papers.

In each of the same number of White Papers put 35 grains of Tartaric Acid. When they are to be used, put one of the powders in the blue papers, and one in the white, into separate Tumblers about half full of Water; stir them until dissolved, pour the two mixtures together, and drink as they effervesce.

Philadelphia Sherbet.—Boil in 6 pints of Water 10 or 12 stalks of Green Rhubarb, and 8 ounces of Raisins or Figs; when the water has boiled about half an hour, Strain it, and mix it with 1 teaspoonful of Rose Water, and Vanilla, Orange, or Lemon Syrup to suit the taste. Drink it Iced.

Champagnade, or, Lemon Nectar.—Take, say 6 or 8 Fresh, Juicy Lemons, Wash them, and Scrape their Rinds, so as to permit the fine essential oil contained in them to be in some degree extracted therefrom by pressure. Then cut into halves and have the Juice thoroughly Expressed into an appropriate Vessel, where it should be left with the Lemon Rinds thrown into it, for 8 or 10 hours. Then pour over it about $2\frac{1}{2}$ gallons of Hot Water, and as much Pulverized White Rock Candy as will serve to sweeten the liquid to suit the taste. When this is done let it stand until nearly cool, and the candy is entirely dissolved, when

the whole should be Strained into a suitable Bowl, and a Bottle of Champagne (or Good Sherry Wine, if preferred,) emptied into it. Finally, place a good-sized Lump of Clear Ice in the center, and, when sufficiently cold, serve it out.

Orangeade.—Dilute Sulphuric Acid, and Concentrated Infusion of Orange Peel, each 12 drachms, Syrup of Orange Peel 5 fluid ounces. These ingredients are added to 2 full gallons of Water. A large wineglassful is usually sufficient for a draught. According to taste, more or less water may be added to this most delightful, refreshing, and wholesome beverage, which is of English origin, and was, until very lately, kept as a profitable secret for the exclusive use of the inventor.

NOTE.—The beverage above named as "Orangeade," was found to be remarkably efficient as a precautionary drink to give a good tone to the bowels, during the prevalence of the Cholera in London, some years ago, and was decided by the best physicians of that period to be a safe and superior drink for invalids as well as for those in health, during the entire continuance of that epidemic.

Fine Artificial Champagne.—Take 28 pounds each of Best Lump and Moist Sugar, and Boil them together in 30 gallons of Distilled or Clear Rain Water. Skim off any impurities that arise, and while the liquid is still warm, pour it into a Cask. Then add 500 grains of Citric Acid dissolved in 1 pint of Water, and a sufficient quantity of Yeast. Let the cask then be placed in a cool place, and permit the contents to ferment. Next add 2 gallons of Pure and Good Golden Sherry Wine, previously well boiled, 2 gallons of Finest French Brandy, 1 gallon of the Essence of Strawberry Juice, 1 quart Tincture of Cochineal, previously mixed together and filtered. Finally, Stir Up the entire mixture well, permit it to become clear by settling, Rack it off, Fine it, and Bottle.

Travelers' Lemonade Powders.—Pulverize and mix together 1 pound of Best Loaf Sugar, 2 ounces Carbonate Soda, and 6 or 8 drops Oil of Lemon. Divide the mixture into 32 equal portions, wrapping them up in Pink Paper. Then take 2

ounces of Tartaric Acid, and divide it into 32 parts, wrapping them in White Paper. Dissolve one of each kind of powder in Separate Glasses half filled with Water, mix the Solutions together, and drink while they effervesce.

To Make Flip.—Beat up 8 Eggs, and add to them a dozen Lumps of Sugar. Then pour over the mixture about 3 quarts of Boiling Water, and add 3 tumblerfuls of Fine Brandy, and 2 tumblerfuls of St. Croix Rum. Stir the whole well.

Another Flip.—Boil 1 quart of Good Ale in a Saucepan. Then beat up the Whites of 2 Eggs, and add to them 4 table-spoonfuls of Sugar; pour the ale on slowly and Stir at the same time. Pour back and forth from one vessel to another for two or three minutes. This is usually known as Ale Flip, while that preceding it is called Egg Flip.

Bishop.—This beverage is made either with Claret or Port Wine. The method is this: Roast a number of Good, Sound Oranges till they are of a brownish color; lay them in a Tureen or a Small Punch Bowl, and pour over them enough of Pounded Sugar, say a pound to 8 of the Oranges, and 6 glasses of Claret. Do this at night. Cover the tureen and let it stand till next day. When ready, set it in a Pan of Boiling Water; press the Juice from the Oranges and Strain it; heat what remains of the Claret; add it to the strained. The glasses drank out of should be slightly warmed.

Champagne Cup.—Dissolve some Sugar in Boiling Water, with a little Lemon Peel; use only a few lumps of Sugar. Let it stand for a while, and pour in a quart bottle of Champagne, with a Sprig of Verbena, a glass of Sherry and 2 tumblers of Water. Mix, Strain, and Ice well.

Orangeade.—Half an Orange, 1 tablespoonful of Sugar, 2 Slices of Orange, 1 tablespoonful of Raspberry Syrup. Fill the tumbler with Shaved Ice; add Water; Shake well and Dash with Port Wine. Ornament with Berries. Use a Large Glass.

True Gooseberry Champagne.—Take 20 pounds of Full-grown but Unripe Gooseberries, of any variety having but little flavor. Rub off the blossoms and stems; pick out unsound or mildewed berries; put the fruit into a sufficiently large Tub, and Bruise it so as to burst each berry without bruising the seeds. Then pour upon the mass 2 gallons of Water; carefully Stir and Squeeze them with the hands, until the juice and pulp are separated from the seeds and skins. After 16 or 24 hours, Strain the whole through a Canvas Bag, and pass through the fruit half a gallon of Fresh Water. Next, dissolve in the Strained Juice 15 pounds of Loaf Sugar, and add Water, if necessary, to make up $5\frac{1}{2}$ gallons of liquid. Let it remain in the tub, Cover it with a Blanket, place a Board over that, and let the temperature of the place wherein the tub is set, be from 50° to 60° Fahrenheit. In one or two days, according to the evidences of fermentation, Draw Off the liquor into a 6-gallon Keg to ferment, keeping it filled up near to the bung-hole. When the fermentation becomes somewhat languid, Close the Bung-hole tightly, and Bore a Small Hole by its side, into which fit a Wooden Peg. In a few days loosen the peg, to permit the air to escape, after which the peg should be driven in again tightly. The wine being thus made, set it in a Cool Cellar, and let it remain there until mid-winter, when, to insure its fineness, it should be Racked into a Fresh Cask, to clear it from its first lees; or, should it then prove too sweet, instead of racking it, the fermentation should be renewed by Stirring up the Lees, or by Rolling the Cask. It will sometimes happen, if the wine be examined on a clear, cold day in February or March, that it will be found fine enough to bottle without further trouble. If it be racked, it should be Fined in the usual way, with Fish Glue, or Isinglass.

Soda Negus.—This very pleasant and refreshing beverage is made as follows:—Take 1 pint of Port Wine, 6 or 8 lumps of Loaf Sugar, a few Cloves, and a little Grated Nutmeg or Ground Cinnamon. Warm them in a Saucepan, pour into a Pitcher and turn in a Bottle of Soda.

Superior Ginger Beer.—Turn 4 gallons of Boiling Water on 4 pounds of Brown Sugar, or 2 quarts of Molasses; add 3 ounces of Cream of Tartar, and the same of Ginger; Stir them well, and put into a Cask. When milkwarm, put in 1 pint of Good Yeast, stopping the cask closely, and shaking it well. Bottle it in about 24 hours. In 10 days it will sparkle like champagne. 2 or 3 Lemons sliced in will much improve it. It is excellent in warm weather.

Ginger Lemonade.—Boil 12 pounds of Lump Sugar in 10 gallons of Water; take a half pound of Ground Ginger, boil with the Liquors, and pour it upon 1 dozen Pared Lemons. When cold, put it in a Cask with 2 tablespoonfuls of Yeast, having sliced the lemons; add 1 ounce of Isinglass. Close up the cask the next day; it will be ready in a week or ten days.

Fine Ginger Wine.—Boil together for half an hour, 14 quarts of Water, 12 pounds of Sugar, 4 ounces of the Best Ginger, bruised, and the Rinds of 6 Good Sized Lemons. When lukewarm, put the mixture into a Cask, with the Juice of the lemons, and half a pound of Raisins. Add 2 teaspoonsful of New Yeast, and stir every day for 10 days, when it may be drawn off and bottled.

Homemade Soda Water.—Take 40 grains of Carbonate of Soda, and the same quantity of Fine White Loaf Sugar, 50 grains of Lemon or Tartaric Acid. Mix these in 4 glasses of Water, stir, and drink.

If a Sliced Lemon is substituted for the Acid, this drink will be found still more delicious, and is very refreshing and wholesome in hot weather, or when one is feverish.

American Sherry Cobbler.—Fill a Large Tumbler with Broken Ice; put a tablespoonful of Powdered Sugar on top; pour in 2 wineglassfuls of Fine Sherry Wine; insert 2 slices of Pin apple or Orange, and 5 or 6 Berries, if in season; cover the glass with a Shaker, and Shake the mixture for a few seconds; fill the tumbler again, and drink through a Straw.

Any other wine, if it be preferred, may be substituted for Sherry.

Mint Julep.—Fill a Large Glass with Finely Broken or Shaved Ice; place on top a few Sprigs of Fresh Mint, and a large tablespoonful of Powdered Sugar; pour in $1\frac{1}{2}$ wine-glassfuls of the Finest Cognac; add a few Berries, and a couple of Slices of Orange. Shake well; Dash with Fine Port Wine, or Jamaica Rum. Sprinkle a little White Sugar on top, and place above all a few More Berries, a Slice of Pineapple, and a Sprig or two of Mint, by way of ornamentation. Imbibe through a Straw.

Claret Cup.—1 bottle of Claret, 1 pint of Cold Water, 1 teaspoonful of Ground Cinnamon and Cloves, the Rind of 1 Lemon. Ice well.

Mulled Claret.—The Peel of 1 Lemon, 5 or 6 tablespoonfuls of Pounded White Loaf Sugar, 1 glass of Sherry Wine, 1 bottle of Claret, 1 bottle of Soda Water. More Sugar if necessary. Heat it, and serve hot, with Grated Nutmeg.

Real Metheglin.—Take 50 pounds of Clear Honey, Boiling Water sufficient to fill a 16-gallon Cask; Stir them well for a day or two; add Yeast, and Ferment.

Cherry Wine.—No. 1.—Cherries, sound and ripe, 35 pounds; Brown Sugar, 5 pounds; Water, sufficient quantity to make 8 gallons; Best French Brandy, $1\frac{1}{2}$ pints. Add Yeast, and set aside to Ferment.

No. 2.—Cherries, 30 pounds; Moist Sugar, 5 pounds; Water, sufficient quantity to fill a seven gallon Cask; Ferment.

Currant (Red) Wine.—No. 1.—Red Currants, ripe and sound, 40 pounds; Brown Sugar, 7 pounds; Water, to make 8 gallons; French Brandy, 1 quart; Ferment.

No. 2.—Red Currants, bruised and pressed, 35 pounds; Brown Sugar, 5 pounds; Water, sufficient quantity to fill up an eight gallon Cask; Ferment. This yields a pleasant red wine, rather tart, but keeps well.

Currant Wine.—White Currants, 70 pounds; Red Currants, 70 pounds: Rain Water, to make 30 gallons; Sugar, 20

pounds; French Brandy, 6 pints; Press; to each gallon of Juice add 3 gallons of Water; to 10 gallons Liquor, add 30 pounds of Sugar, and Ferment. When you bung it up, add 2 pounds of Brandy to each 10 gallons of wine.

Currant Wine.—Take 4 quarts Juice, 8 quarts Water, 12 pounds Bright Sugar. Ferment in Tubs. Skim every day till it has done singing; then put it into a Barrel; put the Bung in loosely till it has done singing; then drive it in tight, and it will be ready to Rack off and Bottle in January.

Black Currant Wine.—No. 1.—Black Currants, 16 pounds; Brown Sugar, 28 pounds; Rain Water, to make 30 gallons; French Brandy, 1 gallon; Ferment.

No. 2.—Black Currants, 10 pounds; Brandy, 2 pounds; Water, 7 gallons; Yeast, a sufficiency. Ferment these for eight days, then Bottled and Cork well. This yields a pleasant, rather vinous, cooling liquor, or it may be made into wine like the common currants; by the first process, the wine is dark purple, rather thick, but good.

Elder Wine.—No. 1.—Elderberries, 12 gallons; Boiling Water, 8 gallons; Brown Sugar, 40 pounds; Cloves, 4 ounces; French Brandy, half a gallon.

No. 2.—Juice of the Berries, 4 gallons; Water, 6 gallons; Brown Sugar, 30 pounds. Dissolve by Boiling. Add Yeast, and Ferment; then add Brandy, 2 pounds, and Bung it Up for three months. Disagreeable when Cold, but if Mulled with Allspice, and drank Warm in winter time, it forms a pleasant stimulant.

Excellent Elderberry Cordial.—Take the Juice of Elderberries 5 gallons, Water 5 gallons, White Sugar 22 pounds, Red Tartar 4 ounces. Put them together in a Clean, Sweet Cask, and add sufficient Yeast to Ferment the whole properly. While the process of fermentation is in operation, place 2 ounces of Ginger Root, 2 ounces of Allspice, and half an ounce of Cloves, in a Cotton Bag, and Hang it in the cask: they give a pleasant flavor to the wine, which will become clear in about two

months. It may then be Drawn Off and Bottled. Good Brandy improves this wine, but, if the fermentation has been carefully conducted, it is not essential.

Blackberry Wine.—Take Cleanly Picked, Ripe Blackberries, Press the Juice from them, let it stand (lightly covered) about 36 hours to Ferment. Then Skim Off whatever rises to the top, and to every gallon of the juice, add 1 quart of Water, and 3 pounds of Nice Sugar. Let the mixture then stand in an Open Vessel 24 hours; Skim again and Strain, and Barrel the liquid. Let it stand 8 or 9 months in an even temperature. It should then be Fined with Fish Glue or Isinglass, Racked Off, and put into Bottles. This receipt, if carefully followed, will produce a wine that with age becomes as rich and valuable as the best port.

Superior Blackberry Wine.—Take 5 gallons of Well-picked and Bruised Blackberries, and pour over them 5 quarts of Boiling Water. Allow the mixture to stand 24 hours, stirring it occasionally. Then Strain Off the Liquor into a Cask, and add 2 pounds of Sugar to every gallon. Close the cask tightly, and let the wine remain so until the following October, when it will be ready for use, requiring no further straining or boiling. If properly made according to this receipt, a Blackberry Wine will be had that cannot be excelled for flavor and wholesomeness.

Another Good Receipt for Making Blackberry Wine.—Take Clean, Fully-ripe Berries and put them into a Tub having a Tap to it; pour over them just enough Boiling Water to fairly cover them. Then, when somewhat cool, Mash the berries thoroughly with the Hands; then let them stand with a Cover over them until the fruit begins to float, which will usually occur in a few days. Next, Draw Off the Clear Liquor into Another Vessel, and add to every 10 quarts of the liquor 4 pounds of Sugar; Stir it well, and let it stand to work for 8 or 10 days, when it should be Filtered through a Flannel Jelly Bag into a Cask. Then take 4 ounces of Isinglass and Steep it in 1 pint of Blackberry Juice for 12 hours, and then Boil it over a Slow Fire

for half an hour with 1 quart or 3 pints more Juice, and pour it into the cask; when cool, Shake or Stir the wine well; then let it settle for several days, and Rack it Off into a Clean Cask, and Bung it well.

Gooseberry Wine.—No. 1.—Brown Sugar, 14 pounds; Gooseberries, 80 pounds; Rain Water, to make 20 gallons; Brandy, half gallon; Ferment.

No. 2.—Ripe Berries, 5 gallons, Water, 15 gallons. Soak 24 hours; Strain; to each gallon add Lisbon Sugar, 2 pounds, and Ferment.

No. 3.—Bruised Berries, 40 pounds; Water, 5 gallons. Soak for a day; Strain; to each gallon add Loaf Sugar, 6 pounds, and Ferment.

Wine of Tomatoes.—This really fine and wholesome wine may be made of a superior quality thus:—Take Fresh, Ripe Tomatoes, Mash them fine, Strain through a Seive, Sweeten with Sugar to suit the taste, set it away in a Porcelain or Glass Jar, nearly full, Cover tight, with the exception of a small space for the refuse to work through during fermentation. When it is done fermenting, it will become pure and clear. Then Bottle. A little Salt added in the process brings out the fine flavor, and age greatly improves the quality.

Ginger Wine.—No. 1.—Best Jamaica Ginger, 1 pound; Rain Water, 14 gallons; Refined Sugar, 40 pounds. Boil these together for about half an hour; cool down to 72° Fahr., and add fresh Lemon Peel, 1 pound; Yeast, a sufficiency. Set aside for about fourteen days, and having added a half gallon of French Brandy, Bottle it.

No. 2.—Bruised Ginger, 6 pounds; Water, 5 gallons. Boil for half an hour; add Sugar, 14 pounds; Boil till dissolved, then cool and put the Liquor along with 7 Sliced Lemons and 1½ pounds of Brandy; add a little Yeast, and Ferment; Bung it Up for three months and then Bottle it.

Lemon Wine.—12 Lemons in slices, 6 pounds of Clean New Orleans Sugar, 6 gallons Rain Water, 6 pounds of Raisins. Ferment in the usual way.

Lemon Beer.—Take 2 gallons of Water, 2 Sliced Lemons, 2 spoonfuls of Ground Ginger, 1 pint of Yeast, and enough Sugar to make it pretty sweet.

Ambrosial Cream.—Take 2 ounces of Tartaric Acid, 2 ounces of Cream of Tartar, $2\frac{1}{2}$ pounds of White Sugar, 1 quart of Water, the Whites of 4 Eggs, well beaten, 2 tablespoonfuls of Wheat Flour. Put all these articles in a Tin Dish, and Heat them—but not to the boiling point—and then add 2 drops of Fine Oil of Lemon (or other flavoring if it be preferred), and that will complete the Syrup. When you desire to use it, pour 3 tablespoonfuls of the syrup into a Tumbler filled two-thirds with Water. Then add as much Soda as you could hold on a silver dime, and drink immediately. This makes a very cool, refreshing Summer beverage.

Orange Wine.—Take 45 pounds of Sugar, 20 gallons of Water; Boil them together, and Clarify with the Whites of 12 Eggs; pour the Boiling Liquor upon the Parings of 200 Fresh Oranges, add the Strained Juice of these oranges, and 12 ounces of Yeast. Let the mixture work for several days, then Strain it into a Barrel; Bung it loosely; in about 4 weeks add 8 pounds of Fine Cognac Brandy, and three months afterward it will be fit to use. It is a splendid beverage, especially for tropical climates.

Sherbet.—Take 2 dozen Ripe Oranges, Press out their Juice, and pour 1 quart of Boiling Water over the Peels, and let it stand for half an hour. Boil 2 pounds of Loaf Sugar in 1 quart of Water; Skim it; then add the juice and the water from the peel to the sugar. Strain, and Freeze it like ice cream. After it is prepared to the point of cooling or freezing, it will sometimes occur that the addition of a little more Orange Juice and Sugar, will improve it. In very cold weather it may be simply cooled in the air after straining.

Raisin Wine Equal to the Best Malaga.—Take 200 pounds of Malaga Raisins, 16 gallons of Water, 16 gallons of Crab Cider 4 or 5 days old, (or 32 gallons of Water, if the cider cannot be had). Cover these over and let them Soak for 2 weeks, Stirring them, however, every day. Then Press, put the Liquor into a Cask, with the Bung only laid on the Hole, until the liquid stops hissing; then add 8 pounds of Brandy, and put the Bung in Tight. Some use a smaller proportion of both raisins and cider, increasing the proportion of water, however, to the quantity above given.

Hasty Champagne.—A really delightful drink to which this name has been given, may be made as follows:—Take 2 or 3 Sliced Lemons, 2 tablespoonfuls of Tartaric Acid, 2 ounces Race Ginger, 3 pounds Bright Demarara Sugar, and pour over them 5 gallons of Boiling Water. When blood warm, add half a pint of Distillery Yeast, or 1 pint of Home-brewed. Let the whole Stand in the Sun for a day. In the evening Bottle it, and Wire the Corks. It will be ready to drink in two or three days, and will sparkle and effervesce like genuine champagne, while to the palate and stomach it will prove most agreeable and wholesome.

Fine Ginger Beer.—Take 20 pounds of Sugar, 18 ounces of Lemon Juice, 1 pound of Drip Honey, 22 ounces of Bruised Ginger Root, 18 gallons of Water, 3 quarts of Good Yeast. Boil the ginger half an hour in 2 gallons of the water; then add the rest of the water, and the other ingredients. As soon as it is cold, Strain. Then add the Whites of 2 Eggs, well-beaten, and 1 oz. of Essence of Lemon. Let it stand 4 or 5 days, and Bottle. It will keep well for a long time.

Beau Hickman's Summer Drink.—5 drops of Sassafras Oil, 5 drops of Oil of Wintergreen, 5 drops Oil of Spruce, 1 quart of Boiling Water, poured on 1 large tablespoonful of Cream of Tartar. Add 4 quarts of Cold Water, the oils, 1½ gills of Distillery Yeast (or 3 gills of Home-brewed Yeast), and Sweeten it to suit the taste. In 24 hours Bottle it, and you have a delicious beverage.

A Splendid Tonic Wine Bitters.—Take 1 ounce of Comfrey Root, 1 ounce of Solomon's Seal, 1 ounce of Spikenard Root, half an ounce of Columbo Root, half an ounce of Gentian Root, and half an ounce of Chamomile Flowers. Bruise all together; cover with Boiling Water, and add 4 quarts of Good Wine, and 1 pint of Pure Rye Whiskey. Use half a wineglassful two or three times a day. This is an excellent remedy for Dyspepsia, although it has been known to but comparatively few persons hitherto.

Amsterdam Bitters.—Chamomile Flowers 2 ounces, Wormwood 4 ounces, Gentian Root 2 ounces, Orange Peel 4 ounces, Powdered Cloves one-fourth of an ounce, Carraway Seeds half an ounce, Capillaire 1 gallon, Proof Spirits 4 gallons. Macerate the ingredients together for a month, Press, and Filter.

St. Bernard (or Monks') Bitters.—Take Newly Dried Orange Peel 2 pounds, Coriander Seeds 2 ounces, Carraway Seeds 2 drachms, Cardamom Seeds 2 drachms, Rectified Spirits (60 O. P.) 5 quarts, Burnt Sugar 4 ounces, Syrup 6 quarts, Water sufficient to make up 4 gallons. Steep the seeds and peel in the spirits 14 or 20 days, when it should be Drained Off and replaced by Water; which, after 2 days, Drain Off in turn, and replace by a second quantity of Water. Let the three Tinctures thus obtained be mixed together, and first the coloring, and then the syrup, be added. This, if permitted to remain a short time undisturbed, will become bright; or, if desired for immediate use, it may be Filtered through Fine Linen.

Morning Star Bitters.—Angustura Bark 2 ounces, Chiretta 1 ounce, Chamomile Flowers 1 ounce, Lemon Peel 2 oz., Orange Peel 2 ounces, Cardemom Seeds half an ounce, Cinnamon Bark half an ounce, Carraway Seeds half an ounce, Raisins 4 pounds, Spirits (11 U. P.) 3 gallons. Macerate for 30 days, Press, and Filter.

Strawberry Vinegar.—Steep 8 pounds of Very Ripe Strawberries in 6 quarts of the Best Cider Vinegar, and let them

stand about 3 or 4 days. Then Drain the vinegar through a Jelly Bag, and pour it on the same quantity of fruit. Repeat the process in the same number of days, for a third time. Last, to each pound of the liquor thus obtained, add 1 pound of Fine Sugar. Bottle, and let it Stand Covered, but not tightly corked, 1 week; then Cork it Tight, and set it in a cool but Very Dry Place, where it is not liable to freeze.

N. B.—RASPBERRY VINEGAR is produced in the same way.

Effervescing Fruit Drinks.—Most delicious drinks can be prepared by putting Strawberries, Raspberries, or Blackberries into Good White Wine or Cider Vinegar, and then Drawing it Off, and Adding a New Supply of Fruit, until enough of the fruit flavor is secured. Keep the vinegar thus prepared in Tightly-corked Bottles, and in hot weather use it thus:—Dissolve half a teaspoonful, or less, of Salaratus, or Soda, in a Tumbler containing very little Water, until the lumps are all out. Then fill the tumbler two-thirds full of Water, and add the Fruit Vinegar. If several persons are to be supplied, put the fruit vinegar into each tumbler, and dissolve a proportionate quantity of the soda in a Pitcher, and pour it into the tumblers as each person is ready to drink. Delay spoils it.

Royal Ginger Wine.—Put 10 gallons of Water to 33 pounds of Lump Sugar; Boil and Skim the mixture; then put in 10 ounces of Bruised Ginger Root, the Rinds of 6 Lemons and 6 Sweet Oranges, tied in a Thin Cloth. Let them Boil for half an hour, and pour the liquid into Another Vessel, where it should stand until only luke-warm. Then add 2 tablespoonfuls of Good Yeast, and let it remain until next day, Slightly Covered over. Rinse a Clean Barrel with some Fine Brandy; put into the wine the Peel and Juice of the oranges and lemons, and 4 pounds of the Best Raisins cut open; stir it every day for 2 weeks, and put in the Bung quite lightly. Add 2 ounces of Isinglass, and 1 qt. of Fine Brandy, and Drive in the Bung. When it is done working, let it stand 7 or 8 weeks, and Bottle.

Haytien Antibilious Bitters.—Take 3 drachms of Seville or Havana Orange Peel, 2 drachms of Gentian Root, 1 drachm each of Cardamoms, Grains of Paradise, and Gallengalls, half a drachm each of Nutmeg and Cloves, 1 scruple each of Saffron and Cochineal, and half a handful each of Chamomile and Roman Wormwood. Infuse the whole in 2 quarts of Rum, Brandy, or Madeira Wine; and after it has stood for some time, Pour Off what is Clear, and add to the ingredients 1 quart more of either liquor, though pure brandy is considered best for these bitters. This, in turn, having remained a somewhat longer time, and been occasionally Shaken, is likewise poured off for use. 2 teaspoonfuls, or somewhat less, are to be taken an hour before dinner, in half a glass of Wine.

Ancient Welch Bragget.—Take 1 imperial gallon of Water, and Dissolve in it 1 pound of Honey. Then add half a handful of Rosemary Tops, Bay Leaves, Sweet Briar, Sweet Marjoram, Angelica, Balm, Thyme, or other Sweet Herbs, half an ounce of Sliced Ginger Root, a little Nutmeg, Mace, Cinnamon, and Cloves. Boil these gently together for about half an hour, and Skim until the remaining liquid becomes tolerably clear. In the mean time, having prepared 3 imperial gallons of the First Runnings of Strong Ale (Sweetwort), Mix the two liquids together, Quite Hot, with all the herbs and spices; and, Stirring the mixture thoroughly for some time over a Slow Fire, but without permitting it to boil, Strain Off the resultant Liquor, and set it by to cool. When it becomes lukewarm, Ferment it with Good Ale Yeast, and, after it has properly worked, place it in a suitable Cask, and Hang a Bag containing Bruised Spices, in the midst of the liquid, where it should remain during the entire time of drawing. It is generally drank from the cask, but may be bottled, like other liquors, any time after it has ceased to hiss in the cask. The foregoing receipt for making this once famous banqueting liquor is perfectly genuine, having been obtained from one of the oldest and most hospitable families in Wales, who still adhere to the customs and beverages of the olden time.

Vespetro, or, Royal Cordial.—Take a Thick Glass or Stone Bottle that will hold one or more gallons, and put into it 2 quarts of the Best Brandy. Add to this 2 drachms of Angelica Seeds, 1 ounce of Coriander Seeds, and a teaspoonful each of Fennel and Anise Seeds, all previously Bruised together in a Mortar. Then squeeze into the mixture the Juice of 2 Fresh Lemons, putting in also the Rinds cut into small pieces. Then add 1 lb. of Loaf Sugar, and, Agitating the bottle or jug from time to time, let the whole Infuse 5 days. After this, to render the liquor clearer, pass it through a Cotton Bag, or Filtering Paper, and Bottle it, Corking Tightly. From two tablespoonfuls to a small wineglassful is taken at a time, according to the person and other circumstances. Ordinary judgment is left to determine the proper quantity in most cases.

NOTE.—The above Cordial was constantly used by Louis Philippe, while King of France, with the strongest approval of all the court physicians, who considered it not only an excellent and very agreeable cordial, but invaluable for all complaints of the stomach, such as dyspepsia; indigestion, sickness, colic, obstructions; pains in the side; spasms in the heart and liver; diseases of the kidneys; stranguary; gravel; oppression of the spleen; loathing; vertigo; rheumatism; short breath; worms in children; hepatic flux; etc.

Vinegar of Roses.—This very fine and delicious vinegar is made by pouring the Best White Wine Vinegar into a Jar or Bottle loosely filled with Rose Leaves, to the height first occupied by the leaves. After the mixture has thus remained for two or three weeks, Placed in the Sun, or a Warm Situation, it may be Strained Off, and passed through a Cotton or Flannel Jelly Bag, and if not sufficiently fine for bottling, it is to be Fined in the usual way, either with Isinglass or a little Alum Water. It is best to keep the vinegar in Large Bottles, which should be kept Tightly Corked, putting, however, into each bottle, a Lump of Refined Sugar. Precisely in the same way are also to be made the Vinegars of Gilly Flowers, Tarragon, Elder Flowers, etc.

Old-fashioned English Spruce Beer.—Pour 8 gallons of Cold Water into a Barrel, and then 8 gallons of Boiling Water. To this add 12 pounds of Molasses, with about half a

pound of Essence of Spruce, and as soon as the mixture becomes somewhat cooler, put in half a pint of Good Ale Yeast. The whole should then be Well Stirred or Rolled in the barrel, after which remove the Bung from the barrel, for 2 or 3 days, when the liquor may be Bottled—Stone Bottles being preferable for the purpose. Finally, Secure the Corks well with Twine, pack the bottles in Saw-dust or Sand, and in about 2 weeks it will be ripe for drinking.

In situations where the Green Shoots, Tops, Cones, etc., of Spruce Pine are to be easily obtained, the beer may be brewed immediately from them, dispensing with the extract. When the shoots and cones are used, they should be Boiled in the water for two hour; after which the Liquor is to be Strained into a Barrel, and the molasses and yeast added to the decoction, proceeding afterward as above directed.

The sulubrity of Spruce Beer is universally established; and, notwithstanding its invincible terebinthine flavor, forms so refreshing and grateful a beverage that it should be largely used. It is a powerful antiscorbutic, and, as it does not offend the weakest stomach, whatever may be its effect upon the palate, it is highly entitled to our attention.

Norfolk Punch.—Steep the Thin Parings of 7 Lemons, and of 7 Havana Oranges, in 1 pint of Pure Brandy, for 3 days. Then Squeeze all the Juice of the lemons and oranges into the brandy, to which add 3 pints of Rum, 3 more pints of Brandy, and 6 pints of Water. Grate 1 Nutmeg into 2 quarts of Milk; and, having made it Boiling Hot, pour it into the foregoing ingredients, carefully keeping the whole Well Stirred until a complete mixture is made. Then add 2 pounds of Fine Loaf Sugar, which must also be Well Stirred. Let the punch thus made then stand for 12 hours, when it should be Strained through a Flannel Bag until it appears perfectly bright. It may, probably, require to be strained several times, according to the quality of the sugar, and other circumstances. When quite clear, this charming liquor is immediately fit to drink. It will keep, if bottled, any length of time and in all climates.

Capital Sugar Vinegar.—This useful article of domestic economy may be easily, cheaply, and advantageously made by almost any person, if they observe the following formula:—To every quart of Water (Spring Water is to be preferred) put one-fourth of a pound of the Coarsest Sugar; Boil them together, and keep Skimming the liquor as long as any scum arises. After Pouring it into a Tub or Vessel, let it stand until cool enough to work. Then place in it a Toast spread with Yeast, of a size proportioned to the quantity made. Let it Ferment for a day or two; then beat the yeast into it, put it into a Keg or Barrel, with a Flat Stone or Piece of Slate over the Bung-hole, and place it in a situation where it may best receive the warmth of the Sun. Make this vinegar in March or April, and it will be fit for use in July or August. If it is to be bottled, it should be previously Drawn Off from the first cask into another, and a handful of Shred Isinglass thrown into 1 barrel of vinegar, or less in proportion to the quantity of liquid. Then let it stand a few days to Clear.

Vinegar made as above directed, although very strong, may be used for Pickling, or for ordinary purposes without being reduced; but for pickles not to be exported, or for home use, it will easily bear mixing with at least an equal quantity of Cold Spring Water. There are few pickles for which this vinegar need ever be boiled. Without boiling it will keep Walnuts very finely, even for the East or West Indies, or for long sea voyages. In such cases, however, the vinegar must be unmixed with water. In the diluted form it is excellent for culinary and table uses.

Christmas Egg Nogg.—12 Eggs, 2 quarts Brandy, 1 pt. Santa Cruz Rum, 2 gallons Milk, $1\frac{1}{2}$ pounds White Sugar. Beat Separately the Whites and the Yolks of the eggs. Mix all the ingredients except the beaten whites, which should be placed in a state of light froth on top of the mixture, where it will float and give an ornamental appearance to the bowl, as well as add a zest to this royal winter drink. If liked, a very little Grated Nutmeg, or Other Spice, may be sprinkled over the liquid, after it is mixed. The quantity given above, is sufficient for a party of about forty persons.

A Capital Egg Nogg.—Take 18 or 20 Egg Yolks, 15 tablespoonfuls of Pulverized Sugar; Beat these well together, and Grate into them 1 Nutmeg. Then add 1 pint of the Best Brandy or Jamaica Rum, and 3 or 4 glasses of Fine Sherry. Have ready, and Beat to a Light Froth, the Whites of the eggs. Then Whip all together, and add 5 pints of Rich Milk. This makes a very pleasant, mild, and nutritious drink. Sherry Wine may be substituted for the stronger liquors should they be objected to.

The quantity here provided for is enough for twenty persons.

SYRUPS FOR MINERAL WATERS.

Simple Syrup.—White Sugar 10 pounds, Water 1 gallon, Best Isinglass one-fourth of an ounce (or the White of 1 Egg). Dissolve the isinglass in Hot Water, and add it to the Hot Syrup. The syrup is to be made with Gentle Heat and then Strained.

Lemon Syrup.—Grate off the Yellow Rinds of Lemons, and Beat them with a sufficient quantity of Granulated Sugar. Express the Lemon Juice, add to each pint of juice 1 pint of Water, and $3\frac{1}{2}$ pounds of Granulated Sugar, including that rubbed up with the rind; Warm the mixture until the sugar is dissolved, and Strain.

Lemon Syrup No. 2.—Simple Syrup 1 gallon, Oil of Lemon 25 drops, Citric Acid 10 drachms. Rub the oil of lemon with the acid, add a small portion of the syrup, and Mix.

Lemon Syrup No. 3.—Dissolve 6 drachms of Tartaric Acid, and 1 ounce of Gum Arabic, in pieces, in 1 gallon of Simple Syrup; then add $1\frac{1}{2}$ fluid drachms of the Best Oil of Lemon. Or, you may Flavor with the Saturated Tincture of the Peel in Cologne Spirits.

Strawberry Syrup.—Strawberry Juice 1 pint, Simple Syrup 3 pints, Solution of Citric Acid 2 drachms.

Strawberry Syrup No. 2.—Fresh Strawberries 5 qts., White Sugar 12 pounds, Water 1 pint. Sprinkle some of the sugar over the fruit, in layers, and allow the whole to remain so for several hours; Express the Juice, and Strain, Washing Out the Pulp with Water. Then add the remainder of the sugar and water, bring the fluid to the point of boiling, and then Strain. This will keep a long time.

Raspberry Syrup.—Raspberry Juice 1 pint, Simple Syrup 2 pints, Solution of Citric Acid 2 drachms. Raspberry Syrup may also be made in a way similar to that given in the receipt for making Strawberry Syrup No. 2.

Vanilla Syrup.—Fluid Extract of Vanilla 1 ounce, Citric Acid half an ounce, Simple Syrup 1 gallon. Rub the acid with some of the syrup, add the extract of vanilla, and Mix.

Vanilla Cream Syrup.—Fluid Extract of Vanilla 1 ounce, Simple Syrup 3 pints, Cream (or Condensed Milk) 1 pint. May be colored with Carmine.

Cream Syrup.—Pure, Fresh Cream half a pint, Fresh Milk half a pint, Powdered Sugar 1 pound. Mix by Shaking, and keep in a cool place. The addition of a few grains of Bicarbonate of Soda will retard its souring for some time.

Ginger Syrup.—Tincture of Ginger 2 fluid ounces, Simple Syrup 4 pints.

Ginger Syrup No. 2.—Macerate $1\frac{1}{2}$ ounces of Beaten Ginger in a quart of Boiling Water, Closely Covered, for 24 hours. Then, after Straining the infusion, make it into a Syrup by adding at least 2 parts of Fine Loaf Sugar, dissolved and boiled up in a Hot Water Bath.

Orange Syrup.—Oil of Orange 30 drops, Tartaric Acid 4 drachms, Simple Syrup 1 gallon. Rub the oil with the acid and Mix.

Pineapple Syrup.—Oil of Pineapple 1 drachm, Tartaric Acid 1 drachm, Simple Syrup 6 pints.

Pineapple Syrup No. 2.—Pineapple Juice (by expression) 1 gallon, Sugar 15 pounds, Fruit Acid (see receipt for making in another place) 2 ounces.

Vanilla Cream Syrup.—Cream Syrup 1 pint, Vanilla Syrup 1 pint, Oil of Bitter Almonds 4 drops.

Nectar Syrup.—Vanilla Syrup 5 pints, Pineapple Syrup 1 pint, Strawberry, Raspberry, or Lemon Syrup 2 pints.

Sherbet Syrup.—Vanilla Syrup 3 pints, Pineapple Syrup 1 pint, Lemon Syrup 1 pint.

Grape Syrup.—Brandy half a pint, Spirits of Lemon quarter of an ounce, Tincture of Red Sanders 2 ounces, Simple Syrup 1 gallon.

Banana Syrup.—Oil of Banana 2 drachms, Tartaric Acid 1 drachm, Simple Syrup 6 pints.

Coffee Syrup.—Roasted Coffee half a pound, Boiling Water 1 gallon. Enough is Filtered to make half a gallon of the infusion, to which must be added 7 pounds of Granulated Sugar.

Wild Cherry Syrup.—Wild Cherry Bark (in coarse powder) 5 ounces. Moisten the bark with Water, and let it stand for 24 hours in a Close Vessel. Then Pack it firmly in a Percolator, and pour Water upon it until 1 pint of fluid is obtained. To this add, Sugar 28 ounces.

Wintergreen Syrup.—Oil of Wintergreen 25 drops, Simple Syrup 5 pints, Burnt Sugar enough to color.

Sarsaparilla Syrup.—Oil of Wintergreen 10 drops, Oil of Anise 10 drops, Oil of Sassafras 10 drops, Fluid Extract of Sarsaparilla 2 ounces, Simple Syrup 5 pints, Powdered Extract of Licorice half an ounce.

Parrish's Sarsaparilla Syrup.—Simple Syrup 4 pts., Compound Syrup of Sarsaparilla 4 fluid ounces, Caramel 1½ oz., Oil of Wintergreen 6 drops, Oil of Sassafras 6 drops.

Maple Syrup.—Maple Sugar 4 pounds, Water 2 pints.

Chocolate Syrup.—Best Chocolate 8 ounces, Water 2 pts., White Sugar 4 pounds. Mix the chocolate in the water, Heat, and Stir thoroughly over a Slow Fire; Strain, and add the Sugar.

Coffee Cream Syrup.—Coffee Syrup 2 pints, Cream 1 pint.

Ambrosia Syrup.—Raspberry Syrup 2 pints, Vanilla Syrup 2 pints, Hock Wine 3 ounces.

Hock and Claret Syrup.—Hock or Claret Wine 1 pt., Simple Syrup 1 quart.

Solferino Syrup.—Best Brandy 1 pint, Simple Syrup 1 quart.

Port, Madeira, or Sherry Wine Syrup.—Either Wine $1\frac{1}{2}$ pints, Simple Syrup $2\frac{1}{2}$ pints.

Fruit Acid, (*used in some of the Syrups.*)—Citric Acid 4 ounces, Water 8 ounces.

NOTE.—Most of the Syrups not made from fruits may have a little Gum Arabic added, in order to produce a rich froth.

CANDIES, ETC.

Best Everton Taffy.—Take 3 pounds of Moist Sugar, 6 ounces of Butter, $2\frac{1}{2}$ teacupfuls of Water, and 2 Lemons. Boil the sugar, butter, water, and half the rind of the lemons together, and when done—which will be known by dropping into Cold Water—let it stand aside till the boiling has ceased, and then Stir in the Juice of the lemons. Butter a Dish, and pour it in about a quarter of an inch in thickness. The Fire must be Quick, and the Taffy Stirred all the time.

Maple Candy.—Take 2 pounds of Maple Sugar, 1 pint or less of Warm Water; Boil until it becomes hard when dropped in cold water or on a cold plate. Then add 3 or 4 tablespoonfuls of Cider Vinegar. When it is done Pour Thinly into Tin Pans.

Butter Scotch.—2 pounds of Bright New Orleans Sugar 2 pints of Water; Dissolve and Boil. If it is done properly it will be moderately crisp when dropped into water. Then should be added 2 tablespoonfuls of Butter, and sufficient Lemon Juice, Oil of Lemon, or other Flavoring Extract to suit the taste.

Molasses Candy.—Boil Molasses over a Moderately Hot Fire, and Stir it constantly. When it is supposed to be done, which may be known when it becomes hard if dropped into Cold Water, then add a little Vinegar to make it brittle, and such Flavoring Ingredient as may be preferred. Pour Off into Buttered Tin Pans. If the candy is to contain Nuts of any kind, they should be placed in the pan before pouring the candy.

Twist Candy.—Boil 6 pounds of Common Sugar, and 1 quart of Water over a Slow Fire for half an hour without skimming. When boiled enough Take it Off; then, with Clean Hands Rubbed with Butter, take that which is partially cooled and Pull it the same as molasses candy, until it is bright; then Twist or Braid it, and Cut into Convenient Lengths.

West India Toff.—Take 2 quarts of West India Molasses, 1 pound of Brown Sugar, the Juice of 2 Large Lemons, or a teaspoonful of Strong Essence of Lemon. Mix together the molasses and sugar, and Boil the mixture in a Preserving Kettle for 3 hours, over a Slow Fire. When it is thoroughly done, it will, of itself, cease boiling. If not boiled enough it will never congeal, and must be boiled over again. While boiling, Stir the mass frequently, and take care that it does not burn. After it has boiled about two hours and a half, Stir in the lemon-juice. If the lemon is put in too soon, all the taste will be boiled out. When the candy is done, Pour it into Square Tin pans, previously Rubbed with Fresh Butter or the Best Olive Oil.

Lemon Candy.—6 pounds of "B" Sugar; add to it 3 pints of Water, and put the mixture over a Slow Fire for half an hour; Clarify with a little Dissolved Gum Arabic. Skim Off the Impurities as rapidly as they rise to the surface of the boil-

ing sugar. When it becomes Perfectly Clear, try it by taking a spoonful and Dropping it into Cold Water, where, if done, it will become immediately hard, clear, and, when broken, will snap like glass. Flavor with Oil of Lemon, and Pour Off Thinly, and Cut into Sticks. Hoarhound, Peppermint, Rose, and Other Flavored candies may be made in the same way as the lemon, using Fine Essence of Rose, Peppermint, Finely Powdered Hoarhound, etc., instead of lemon for flavoring.

Peppermint Lozenges.— $3\frac{1}{2}$ pounds of Best Powdered White Sugar, half a pound of Pure Starch, and enough Oil of Peppermint to Flavor. Mix into a Stiff Paste with Mucilage, and Cut into such shapes and sizes as may be desired.

Dyspepsia Lozenges.—Prepared Chalk 4 ounces, Prepared Crabs' Eyes 2 ounces, Bole Ammoniac 1 ounce. Mix into a Paste with Dissolved Gum Arabic. Use by permitting them to dissolve slowly in the mouth, when they will afford sensible relief in Heartburn, Sour Stomach, Dyspepsia, etc.

Licorice Lozenges or Drops.—Pure Concentrated Extract of Licorice, 4 pounds, Powdered White Sugar 8 pounds. Mix with Mucilage made with Rose Water, and Form the mass, when of the proper consistency, into Lozenges or Balls.

Candied Popped Corn.—Boil Good Molasses for 25 or 30 minutes, Dip the Corn into it, and Press together in Balls or Cakes.

Fig or Raisin Candy.—Take 3 pounds of Sugar, and 3 pints of Water, which put over a Slow Fire. When done, add a very little Vinegar, and a lump of Butter, and Pour into Pans where Split Figs or Seeded Raisins have been laid.

Candied Fruit.—Take 2 pounds of Fine Loaf Sugar, in lumps; dip each lump into a Bowl of Clear Water, and put the sugar into a Preserving Kettle. Boil it Down, and Skim it until Perfectly Clear, and in a Caramel State. Then take the Fruits to be candied, such as Large White Grapes, Oranges in Sections,

Lemons and Pineapples in slices, New Figs, etc., all exceedingly nice put up in this way, with the previously prepared syrup:—Dip them into it while the candy syrup is Quite Hot; then place the fruit so treated in a Cool, Dry Place. It will soon harden.

Chocolate Cream.—1 ounce of Best Chocolate, Scraped Very Fine, 6 ounces Best Pulverized Loaf Sugar, 1 quart Sweet Cream. Heat these together nearly to boiling, then remove from the fire, and Mill them well. When cold, add the Whites of 8 or 10 Eggs; Whisk rapidly and Take Up the Froth on a Seive. Serve the cream in Glasses, and Pile Up the Froth on Top of them.

Icing.—Beat the Whites of 4 Small Eggs into a Stiff Froth; then add to them half a pound of Ground or Powdered White Sugar; Beat well until it will stand like foam; Flavor with Vanilla, Lemon, or Rose. This will frost the tops of 2 ordinary-sized Cakes. Heap as much as you deem sufficient in the Centre of the Cake, then Dip a Broad-bladed Knife into Cold Water, and Spread the Icing Evenly over the whole surface.

How to Clarify Sugar for Candies.—To each pound of Sugar, put a Large Cup of Water, and put it in a Brass or Copper Kettle (previously Well Scoured), and let it Simmer over a Slow Fire, for half an hour, and then pour into it a small quantity of Fine Isinglass and Gum Arabic, dissolved together. This will cause all impurities to rise to the surface; Skim them Off as they appear. Use the kind of flavoring desired, as pure and concentrated as possible.

All kinds of sugar used for candy, should be treated as above directed. When boiling Loaf Sugar, add a tablespoonful of Rum, Lemon Juice, or Vinegar, to prevent it from graining while it is making.

Loaf Sugar, when boiled, by Pulling and making into Small Rolls, and Twisting a little, will make what is called "Little Rock," or "Snow." Pulling Loaf Sugar after it is properly boiled, renders it snowy white.

PREPARATIONS FOR THE HAIR.

Mofft's Hair Dye.—Scald 2 ounces of Black Tea in 1 gallon of Boiling Water; Strain, and add 3 ounces Pure Glycerine, half an ounce of Tincture Spanish Flies, 1 quart Bay Rum Let the whole Digest for 2 or 3 days, and Perfume with Essences to suit the taste.

New Hair Dye.—SOLUTION 1.—Nirate of Silver in Crystals, 1 drachm, Gum Acacia 1 drachm, Distilled Water 1 ounce.

SOLUTION 2.—Pyrogallic Acid 1 drachm, Distilled Water 4 ounces. Mix. The different solutions are to be kept in separate bottles.

Hall's Hair Restorative.—Glycerine 2 ounces, Bay Rum 8 ounces, Salt $2\frac{1}{2}$ drachms, Jamaica Rum 4 ounces, Lac Sulphur and Sugar of Lead each 1 drachm and 15 grains, Rain or Distilled Water 16 ounces. Mix. Fit for use after digesting 12 hours. Should be Well Agitated before every application to the hair, which should be free from grease and dirt.

Arnica Hair Tonic.—Take Pure Sherry Wine and Elder Flower Water, each half a pint, Tincture Arnica half an ounce, Aromatic Spirits of Ammonia 1 drachm. Mix.

Liquid for Making the Hair Curl, and Changing a Sandy to a More Pleasing Color.—Take 2 ounces of Scrapings of Lead, one-quarter of an ounce of Litharge of Gold, 1 drachm of Camphor. Boil the whole for half an hour in in a pint of Soft Water. When cold, Pour Off the Liquid, and add to it a drachm of Sugar of Lead, and a drachm of Rosemary Flowers; Boil these together, and Strain Off the Liquid, when it will be ready to use.

Preparation for Producing Blonde Hair.—Shake for a Few Seconds, in a Large Bottle, an Amalgam of Zinc with a small portion of Distilled Water. The water, by taking up oxygen from the air, is partly converted into the peroxide of hydrogen, oxide of zinc being formed at the same time.

The liquid thus obtained is perfectly free from acid which is so commonly found in that prepared according to other methods; it is otherwise perfectly pure, and may be kept for some time without becoming decomposed. This substance forms a perfectly colorless liquid, and turns dark dair to a much lighter color with each application.

Glyce-Limendine.—Purified White Wax half an ounce, Oil of Sweet Almonds 8 ounces. Melt gently together, and add Glycerine 1 ounce, Citric Acid 33 grains, dissolved in Rain Water 1 ounce, Alcohol half an ounce, Water 2 ounces, Oil Lemon 2 drachms, Oil Bitter Almonds 5 drops. Mix thoroughly by Frequent Shaking. This produces a delicate and highly beneficial dressing for the Hair.

Wood's Brown Hair Dye.—Acetate of Lead 2 dr'ms, Hyposulphite of Soda 1 ounce, Rose or Lavender Water 14 oz., Glycerine 2 ounces. Dissolve the acetate of lead and hypophosphite of soda in separate portions of the water; Filter Separately; Mix the Solutions; and add the glycerine.

Fine Hair Wash.—Glycerine 2 ounces, Tincture Myrrh and Aqua Cologne each 1 ounce, Tincture of Cantharides half an ounce, Distilled Water 24 ounces. Mix.

Marrow Cream.—Purified Ox Marrow or Lard 1 pound, Almond Oil 1 pound, Palm Oil 1 ounce, Otto of Cloves half a drachm, Otto of Bergamot half an ounce, Otto of Lemon 1½ oz.

Marrow Pomatum.—Purified Ox Marrow or Inodorous Lard 4 pounds, Purified Suet 2 pounds, Otto of Lemon 1 ounce, Otto of Bergamot half an ounce, Otto of Cloves 3 drachms. Melt the greases, and Beat them up with a Whisk or a Flat Wooden Spatula for half an hour or longer. As the grease cools, minute vesicles of air are inclosed by the pomatum, which not only increase the bulk of the mixtures, but impart a peculiar mechanical aggregation, rendering the the pomatum light and spongy; in this state it is obvious that it fills out more profitably than otherwise.

Best Imitation Bears' Grease.—Almond Oil 10 lbs., Purified Lard 12 pounds, Acacia Pomade 2 pounds, Otto of Bergamot 4 ounces, Otto of Cloves, 2 ounces, Oils of Rose, Acacia, and Orange Flowers, each half a pound. Melt the solid greases together by means of a Water-bath, and then add the ottos.

Bears' Grease thus prepared is just hard enough to "set" in the pots at a summer heat. In very warm weather, or if desired for exportation to tropical climates, it is necessary to use in part French Pomatums instead of oils, or more lard and less almond oil.

Lotion for Thickening the Hair and Preventing it from Falling Off.—Take 4 ounces of Rosemary, 1 pound of Grape Vine Tendrils, 1 ounce of Honey. Boil these half an hour in 2 quarts of New Milk and the same quantity of Soft Water. Then Filter carefully through a Sponge, and Perfume with Essence of Bergamot. Add enough Cologne Spirits to keep it from growing sour. This receipt is very valuable and if the ingredients can be distilled instead of boiled, it will be still better.

Valuable French Wash to Prevent the Hair from Falling Out.—Take 1 pint of the Best Brandy, a teaspoonful of Fine Salt, and a teaspoonful of Powdered Alum. Mix and Shake them well until dissolved. Then Filter, and it is ready for use. If applied every day, it may be Diluted with Rain Water. This is considered by many persons to be the most valuable article for the purpose yet discovered.

Good Hair Oil for Ordinary Use.—Take half a gallon of 90 per cent. Cologne Spirits, and add 1 pint of the Best Castor Oil, or as much as the spirits will cut up. Add as much Oil Bergamot as will give it the desired flavor.

Maccassar Oil.—2 pounds of Olive Oil, 2 drachms Oil of Origanum 2½ drachms Oil of Rosemary. Mix. The tendency of this preparation is to hasten the growth of the hair and make it curl.

Crystalline Pomade.—Take Castor Oil and Pure Olive Oil, each 4 ounces, Spermaceti 6 drachms. Mix with Gentle Heat.

Moustache Pomade.—Lead Plaster 1 pound, Acacia Oil 2 ounces, Otto of Rose 2 drachms, Otto of Cloves, 1 drachm, Otto of Almonds 1 drachm. Color to the shade required with Amber and Sienna Ground in Oil. Mix the ingredients by first Melting the plaster in a Water-bath. Lead Plaster is made with Oxide of Lead boiled with Olive Oil: it is best, however, to get it ready prepared from the wholesale druggists.

Hard, or Stick Pomatum.—Purified Suet 1 pound, White Wax 1 pound, Jasmine Pomatum half a pound, Tuberose Pomatum half a pound, Otto of Roses 1 drachm. OR,

To Make a Cheaper Stick Pomatum, Take Suet 1 pound, Wax half a pound, Otto of Bergamot 1 ounce, Otto of Cassia 1 drachm. This receipt produces *White Batons*. *Brown* and *Black Batons* are also in demand. They are made in the same way as the above, but colored with Fine Ivory Black, or Umber, Ground in Oil, such as may be purchased ready prepared and put up in tubes.

Cocoine.—Oil Theobromæ 3 drachms, Castor Oil 15 fluid ounces, 95 per cent. Alcohol and Glycerine each 2 ounces, or a sufficient quantity. Melt the oils together with Gentle Heat, transfer them to a Bottle, and Gradually Add the alcohol, then the glycerine, as much as it will take up without becoming milky. Perfume to suit. This gives a nearly transparent oil. If it is desired to imitate in appearance other "Cocoa Hair Oils," add more Theobromæ, until the *coveted lardy appearance* is obtained.

Whisker Stimulant.—Shave the beard every three days, and, after each operation, Rub On the Skin the following preparation:—Castor Oil half a pint, Alcohol 1 pint, Cologne 1 ounce, Oil of Cloves and Oil of Bergamot each 20 Drops, Tincture of Cantharides 2 ounces. Mix them well.

Preparation to Restore the Hair when Falling Out.—Take Vinegar of Cantharides half an ounce, Rose Water 1 ounce, Cologne 1 ounce. Mix. An excellent article for the purpose named.

A Very Elegant and Useful Dressing for the Hair.—White Wax half an ounce, Oil of Sweet Almonds 8 oz.; Melt gently together, and add Glycerine 1 ounce, Citric Acid 33 grains, Dissolved in Bay Rum 1 ounce, Alcohol half an ounce, Water 2 ounces, Oil Lemon 2 drachms, Oil of Bitter Almonds 5 drops. Mix thoroughly by Frequent Shaking.

Brilliantine.—Honey 1 ounce, Glycerine half an ounce, Cologne half an ounce, Alcohol 2 ounces. Mix.

Shampooing Liquid.— $1\frac{1}{2}$ ounces of Powdered Refined Borax, half an ounce of White Castile Soap Scrapings; Dissolve in 1 quart of Hot Water. When cool, Strain through a Coarse Cotton Cloth, and add a few drops of Bergamot or other essence to Perfume it.

The Yolks of Eggs are also excellent for shampooing with, and render the hair peculiarly soft and elegant.

Fresh Limes and Lemons halved and Rubbed into the hair, (which must be Well Brushed after the application is dry), give it a bright glossy appearance.

Once a week is often enough to apply either of the above.

Depilatory Power.—This preparation readily removes wild or superfluous hair. Mix 3 parts Crystalized Hydrosulphate of Soda, and 10 parts each of Powdered Quicklime and Powdered Starch. To be Mixed with Water and Applied to the Skin, and left there for 2 or 3 minutes, after which it must be Scraped Off with a Small Wooden Knife, and a little Cold Cream applied to the place just occupied by the paste.

Superior Depilatory Powder.—Take Sulphuret of Calcium as fresh as possible, and Quicklime, equal parts. Reduce them Separately to Fine Powder; Mix; and keep the mixture in a Well-stoppered Bottle. For use, Make into Paste with

Warm Water, and apply to the hairy place (after Shaving the Hair Off Clean) for 2 minutes only. Then proceed as before directed. This is a safe and effective article.

PREPARATIONS FOR THE SKIN

Camphor Ice.—This excellent preparation for Chapped Hands, Chilblains, Roughness of the Skin, etc., is made as follows:—Take Spermaceti half an ounce, Oil of Sweet Almonds 1 ounce, Powdered Camphor 1 drachm. Melt the oil and sperm together, and then add the camphor, previously dissolved in a little of the oil.

Cold Cream.—Oil of Sweet Almonds 8 ounces, White Wax 2 ounces, Rose Water 4 ounces, Borax 1 drachm, Oil Rose Geranium 35 drops. Melt the wax and oil together with Gentle Heat; Dissolve the borax in the rose water; Heat to the Boiling Point, and Mix it with the oil and wax, Stirring Constantly until cold. Lastly, add the oil of rose geranium. This is excellent for Chapped Hands, Sore Nipples, Rough Skin, etc.

Fine Cologne Water.—Take Oil Bergamot 2 ounces, Oil of Neroli 2 drachms, Oil of Jessamine half an ounce, English Oil of Lavender 2 drachms, Oil of Cinnamon 2 drops, Extract of Vanilla $3\frac{1}{2}$ ounces, Tincture of Musk 1 ounce, Alcohol 1 gallon, Rose Water 1 quart. Mix, and let the mixture Stand 14 days; then Filter. It improves with age.

Persian Pomade, or, "Pomade de Venus."—Take Bears' Oil 4 ounces, Honey 6 ounces, Oatmeal 6 ounces, 3 Yolks of Eggs, 1 ounce Powdered Gum Arabic. Mix the honey and gum first; then put in the eggs. To the oil add 2 ounces Deer Suet, and gradually mix with the foregoing. Add the oatmeal last, and thoroughly incorporate the whole. When made it should be like stiff paste. Let it be Well Perfumed with Essential Oils.

Press in Fancy Moulds like soap, or Make into Balls. Use more oatmeal if necessary.

NOTE.—This article has been invented but a year and a half yet such has been the demand for it in Europe, that it can scarcely be supplied fast enough. It is peculiar in its operation on the hands and skin, replacing all roughness, in a short time, with a delicate hue truly attractive. Use as if it were soap.

Lait de Rose, a Fine Cosmetic.—Bitter Almonds 8 ounces, Distilled Water 6 ounces, Elder Flower Water 4 ounces. Make an Emulsion, and add Salts Tartar 1 ounce, Tincture of Benzoin 2 drachms.

Water of Cathay, or Florimel.—Take of Oil Lavender, Oil Bergamot, and Oil Lemon, each 2 drachms, Tinct. Curcuma and Oil Neroli, each 1 drachm, Oil Millissa 30 drops, Oil Rose 10 drops, and Alcohol 2 pints. Mix, and Filter.

A cooling and delightful preparation for the Skin, considered by many persons superior to the best Cologne.

The Celebrated Honey Lotion.—Fine Pale Honey 4 ounces, Glycerine 1 ounce. Mix by Gentle Heat, and, when cold, add Alcohol 1 ounce, Essence Ambergris 6 drops, Citric Acid 3 drachms.

This preparation will remove Discolorations and Freckles, as well as Improve the Complexion very much, after being used a few times.

Pimple, Freckle, and Sun-burn Lotion.—Take 1 drachm Muriate of Ammonia, 1 drachm of Borax, 2 drachms Tincture of Benzoin and 1 pint of Rose Water. Mix. Apply with a Fine Sponge two or three times a day.

Lotion for Sore or Cracked Nipples, &c.—Take Tannin 2 drachms, Glycerine 1 ounce. Heat together until the tannin is dissolved.

Rose Lip Salve.—1 ounce Oil of Sweet Almonds, 3 dr. White Wax, 1 drachm each Cocoa Butter and Spermaceti, 2 dr. Alkanet. Melt all together. Then Strain, and Perfume to suit.

Hardy's Freckle Wash.—Take 2 parts each of Corrosive Sublimate, Sulphate of Zinc, and Acetate of Lead, and 125 parts of Distilled Water. Mix. This preparation being poisonous, care must be taken not to get it into the mouth.

To Remove Stains from the Hands.—A few drops of Oil Vitriol (Sulphuric Acid) in Water, will take the Stains of Fruit, Dark Dyes, Stove Blacking, etc., from the hands without injuring them. Care must be taken, however, not to drop it upon the clothes. It will remove the color from woolen, and eat holes into cotton fabrics.

A Superior Freckle Lotion.—Half a pound of Clean Ox Gall, half a drachm each of Gum Camphor and Burnt Alum, 1 drachm of Borax, and half an ounce each of Rock Candy and Rock Salt. Mix, and Shake Well several times a day for three weeks, or until the gall becomes transparent. Then Strain with care through Filtering Paper, and apply to the skin during the daytime. Wash it Off at night. A very effective article.

Circassian Bloom of Youth.—Boil 2 ounces of Brazil Dust in 3 quarts of Distilled Water, and Strain. Then add $1\frac{1}{2}$ ounces of Isinglass, 4 drachms of Cochineal, 2 ounces of Alum, and 2 ounces of Borax. Boil again, and Strain through a Fine Linen Cloth.

Fine Face Powder.—Powdered Starch 1 pound, Finest French Powdered Chalk 4 ounces, Oxide of Bismuth 4 ounces. Mix thoroughly, and Rub Through a Fine Seive. This is probably one of the most innocent as well as best of the many face powders in use.

Sweet Seventeen.—Take 6 drachms of Sweet Almonds, 3 drachms of Bitter Almonds. Blanch, Dry, and Beat them Up with half a drachm of White Castile Soap, gradually adding $7\frac{1}{2}$ grains of Spermaceti, 15 grains of White Wax, and half a drachm of Oil of Bitter Almonds, Melted Together. When thoroughly incorporated, add gradually 3 drops of Otto of Roses Dissolved in 3 ounces of High Proof Cologne Spirits, and 7 ounces of Distilled Water.

To Make Court Plaster.—Soak Bruised Isinglass in a little Warm Water for 24 hours. Then Evaporate nearly all the water by Gentle Heat, Dissolve the Residue in a little Proof Spirits of Wine, and Strain the whole through a Coarse Linen Cloth. The strained mass should be a stiff jelly when cool. Next, Extend a Piece of Silk on a Wooden Frame, and Fix it Tight with Tacks and Packthread. Melt the jelly, and apply it to the silk Thinly and Evenly with a Hair Brush. A Second Coating must be applied when the first has dried. When both are dry, cover the Whole Surface with two or three Coatings of Tincture of Tulu.

ARTICLES FOR THE TEETH, ETC.

Beall's Tooth Powder.—Mix together Prepared Chalk 12 ounces, Powdered Orris Root 2 ounces, Bicarbonate Soda half an ounce, Soft Part of Cuttle Fish Bone, 1 ounce, Rose Pink sufficient to Color.

Du Bouchet's Celebrated Dentifrice.—Take 2 oz. Prepared Willow Charcoal, half an ounce Magnesia, 1 drachm Finely Powdered Gum Myrrh, half an ounce Powdered Peruvian Bark, Powdered Rock Candy 1 ounce, half an ounce Powdered Orris Root. Mix them together well, and Sift through a Hair Seive. This preparation is one of the best tooth powders in use; it Cleans the Teeth without injuring them, Sweetens the Breath, and Hardens the Gums. It can also be manufactured with small outlay, and be profitably sold at a reasonable price.

Antiscorbutic Tooth Powder.—Extract of Rhatany 1 ounce, Prepared Charcoal 4 ounces, Powdered Cinnamon half an ounce, Cloves half an ounce. Mix well.

If it is desired to form any of the above powders into a Paste, it may be readily done by mixing with them a little Clarified Honey, or Honey of Roses. An objection to pastes is their lia-

bility to ferment or effervesce. Some makers obviate this tendency by keeping the paste in bulk for a considerable time, until the fermentation has entirely subsided, when it is put up in Pots for sale.

French Dentifrice.—Peruvian Bark, Burnt Bread Crust in powder, Loaf Sugar, and Fine Castile Soap, in equal proportions, well incorporated together.

Antiscorbutic Elixir.—Take 10 ounces of Guaiacum, 6 each ounces of Cinchona and Pellitory, 4 drachms each of Benzoin and Orange Peel, 10 drachms of Powdered Cloves. 1 drachm of Saffron, 64 ounces of Spirits of Wine, or Brandy. Digest and Filter.

Dental Rose Elixir.—Cloves 2 drachms, Cinnamon 6 ounces, Ginger 4 ounces, Spirits of Wine 5 pints, Oil of Orange 2 drachms, Otto of Roses 30 drops, Essence of Peppermint 2 ounces. Mix. Let the whole Digest 14 days, and Filter.

Chlorinated Soda Lotion for the Teeth.—Mix together 2 ounces of Chlorinated Soda, and 38 ounces of Distilled Water. This is an excellent preparation for Purifying the Breath, and Cleansing the Mouth after eating or smoking.

Hardy's "Instant Relief" for Toothache.—Pellitory, Camphor, Cloves, and Ginger, each 2 parts, Tincture of Opium 8 parts, Distilled or Clear Rain Water 32 parts. Digest 8 days and Strain.

Toothache Anodyne.—Rectified Spirits 9 ounces, Camphor 4 drachms, Opium $1\frac{1}{2}$ drachms, Oil of Cloves three-quarters of an ounce, Bruised Pellitory three-quarters of an ounce. Let them Digest 2 weeks and Strain.

An Excellent Toothache Paste.—Opium 10 grains, Oil of Cloves 6 drops, Extract of Henbane 10 grains, Extract of Belladonna 20 grains, Powdered Pellitory sufficient to form a Paste. To be placed in the form of Pills in the Cavities of Aching Teeth, after Cleaning them with Cotton or Lint.

Cement for Filling Decayed Teeth.—Digest 18 parts of Powdered Mastic with 8 parts of Ether, and add enough Powdered Alum to form a Stiff Paste.

COLORED FIRES.

The following formulæ will be found very useful to persons who have occasion to prepare materials for Theatrical, Private, Fourth-of-July, or other Fire Exhibitions:—

Red Fire.—Take of Sulphur, Sulphuret of Antimony, and Nitre each 1 part, Dried Nitrate of Strontia 5 parts.

Red Fire, which will not evolve Sulphurous Acid during Combustion.—Nitrate of Strontia, dry and in powder, 1 pound, Chlorate of Potassa, in powder, one-fourth of a pound, Shellac, in coarse powder, one-fourth of a pound. These ingredients are to be Mixed by Gentle Stirring or Sifting. *On no account should they be Rubbed Together in a Mortar as an explosion would probably result.*

Another Red Fire.—Nitrate Strontia 9 ounces, Chlorate Potassa 4 ounces, Gum Shellac 2 ounces, Lycopodium 1 drachm, Mix.

Green Fire.—Powdered Nitrate Barium 1 pound, Powdered Chlorate Potassa 1 ounce, Powdered Gum Shellac 3 ounces, Powdered Black Antimony half an ounce. Mix.

Blue Fire.—Tersulphuret of Antimony 1 part, Sulphur 2 parts, Dry Nitre 6 parts. This is the preparation used for Bengal or Blue Signal Lights, such as are used at sea.

Bengal, or Blue Light No. 2.—Saltpetre 8 parts, Sublimated Sulphur 4 parts, Antimony 1 part, Gum Camphor half a part. Very brilliant.

Blue Fire No. 3.—Take of Sulphur, Sulphate of Potassa, and Ammonio-sulphate of Copper, each 15 parts, Nitre 27 parts,

Chlorate of Potassa 28 parts. Mix. This preparation is used for Theatrical Illuminations. It may be rendered either lighter or darker colored by lessening or increasing the quantities of the sulphate of potassa and ammonio-sulphate of copper.

Blue Fire No. 4.—DARK.—Calcined Alum and Carbonate of Copper each 12 parts, Sulphur 16 parts, Chlorate of Potassa 60 parts.

Crimson Fire.—Chlorate of Potassa $4\frac{1}{2}$ parts, Willow or Elder Charcoal $5\frac{3}{4}$ parts, Sulphur $22\frac{1}{2}$ parts, Nitrate of Strontia $67\frac{1}{2}$ parts. For Pots.

Crimson Fire No. 2.—Charcoal $4\frac{1}{2}$ parts, Sulphuret of Antimony $5\frac{1}{2}$ parts, Chlorate of Potassa $17\frac{1}{4}$ parts, Sulphur 18 parts, Nitrate of Strontia 55 parts. For Boxes and Stars.

Green Fire.—Nitrate of Baryta 77 parts, Chlorate of Potassa 8 parts, Fine Willow Charcoal 3 parts, Sulphur 13 parts.

Green Fire No. 2.—Boracic Acid 10 parts, Sulphur 17 parts, Chlorate of Potassa 73 parts. Very beautiful.

Green Fire No. 3.—Chlorate of Potassa 18 parts, Sulphur 22 parts, Nitrate of Baryta 60 parts. For Theatrical Illuminations.

Green Fire No. 4.—LIGHT.—Sulphur 16 parts, Carbonate of Baryta 24 parts, Chlorate of Potassa 60 parts. Very delicate.

Lilac Fire.—Black Oxide of Copper 6 parts, Dry Chalk 20 parts, Sulphur 25 parts, Chlorate of Potassa 49 parts. For Pans.

Lilac Fire No. 2.—Black Oxide of Copper 3 parts, Dry Chalk 22 parts, Sulphur 25 parts, Chlorate of Potassa 50 parts. For Stars.

Purple Fire.—Take of Lampblack, Realgar, and Nitre each 1 part, Sulphur 2 parts, Chlorate of Potassa 5 parts, Fused Nitrate of Strontia 16 parts.

Red Fire No. 2.—Chlorate of Potassa 20 parts, Sulphur 24 parts, Nitrate of Strontia 56 parts. For Illuminations.

Orange Fire.—Sulphur 14 parts, Chalk 34 parts, Chlorate of Potassa 52 parts.

Yellow Fire.—Charcoal $1\frac{1}{2}$ parts, Sulphur $17\frac{1}{2}$ parts, Dried Soda 20 parts, Nitre 61 parts.

Yellow Fire No. 2.—Charcoal 6 parts, Sulphur $19\frac{1}{2}$ parts, For Pans. Exceedingly beautiful.

Violet Fire—DARK.—Of Alum and Carbonate of Potassa each 12 parts, Sulphur 16 parts, Chlorate of Potassa 60 parts.

Violet Fire No. 2—PALE.—Sulphur 14 parts, Alum and Carbonate of Potassa each 16 parts, Chlorate of Potassa 54 parts.

White Fire.—Charcoal 2 parts, Sulphur 22 parts, Nitre 76 parts. For Theatrical Illuminations.

White Fire No. 2.—Sulphur $13\frac{1}{4}$ parts, Sulphuret of Antimony $17\frac{1}{4}$ parts, Nitre 48 parts.

NOTE.—The ingredients in the above compounds are to be separately Reduced to Powder, and Sifted through Lawn, after which they should be kept in Well-stoppered, Wide-mouthed Bottles, until the time of mixing them for use. The *Chlorate of Potassa*, more especially, must be *separately* treated, and *cautiously* handled, in order to prevent the possibility of explosion from friction while it is in contact with combustible matter. The requisite quantity of each of the ingredients being weighed out and placed on a clean sheet of White Paper, the whole is to be thoroughly but carefully Mixed Together, with a “light hand” by means of a Wooden Knife. The compound is next “lightly” and carefully Packed into Small Cups or Pans for illuminating purposes, or into Small Pill Boxes for stars and trains, a little Priming and Quick Match being lastly attached to each. To *insure success*, the several ingredients must be *dry* and *chemically pure*; and though reduced to the state of a uniform powder, care must be taken that they are not absolutely “dusty” or too finely pulverized. The *Nitrate of Stronia*, *Alum*, *Carbonate of Soda*, *etc.*, before being weighed, require to be Gently Heated in an Iron Pot or Pan, until they fall to powder and lose their water of crystallization. As the materials for colored fires rapidly deteriorate by keeping, and even sometimes inflame spontaneously, to prevent disappointment and *accidents* they should not be prepared long before they will be required for use, and then kept in some situation where their spontaneous combustion can do no harm.

Greek Fire.—Modern Greek Fire is a Solution of Phosphorus in Bisulphide of Carbon. When this solution is poured

upon paper, rags, or shavings, the bisulphide evaporates rapidly and leaves the phosphorus in a state of fine division—so fine that it takes fire spontaneously. It is considered by many persons as a dreadful incendiary agent. This, however, is only another popular error, as it does not set fire to even the thinnest and driest boards.

RELIABLE AND POPULAR REMEDIES.

Liniment for Frost Bite, &c.—Take Spirits of Turpentine 1 ounce, Pure Sweet Oil $2\frac{1}{2}$ ounces, Sulphuric Acid 3 drachms. Mix the acid and oil together, and, when cold, add the turpentine.

McBride's King of Pain.—Take of Oils Origanum, Wintergreen, Cedar, Sassafras, and of Fluid Extract of Capsicum each 2 ounces, Chloroform 1 ounce, Essence of Peppermint half a pint, Spirits of Turpentine 4 ounces, Strong Alcohol 1 gallon. Mix, and Color with Red Sanders.

A Very Excellent Liniment.—Take 1 gallon of Alcohol, 1 ounce each of Oil of Sassafras, Oil of Wintergreen, Spts. of Turpentine, Sulphuric Ether, Oil of Cedar, Balsam of Fir, Spearmint, and Balsam of Life, 2 ounces Oil of Hemlock, 6 oz. Oil Origanum. Mix thoroughly, and let the mixture Digest for several days before using.

True Camphorated Dover's Powder.—300 grains each of Creta Preparanta, Gum Camphor, and Powdered Licorice, 17 grains Sul. Morphine. Pulverize the camphor with Ether, and then add the other ingredients. Dose, from 1 to 10 grains. It is used in all kinds of Fevers, and as an Anodyne.

Superior Corn Plaster.—Powdered Galbaum 1 ounce, Turpentine Gum 10 grains. Soften these by Gentle Heat, and add 8 grains Powdered Sal Ammoniac. Then Roll Out the mass

without employing oil or water. The plaster is to be kept in a Waxed Paper or Piece of Bladder. After bathing the foot in Warm Water, Spread the plaster, and apply to the corn or bunion. Renew the plaster every other day, and relief will soon be the result.

Safe Caustic for Corns.—Tincture Iodine 4 drachms, Iodide of Iron 12 grains, Butter of Antimony 4 drachms. Mix. This preparation is to be applied with a Camel's Hair Brush after Paring the corns.

Osgood's Fever and Ague Cholagogue.—Sulphate of Quinine 2 drachms, Fluid Extract of Stillingia 4 ounces, Fluid Extract of Septaria 1 drachm, Fluid Extract of Podophyllum 3 drachms, Oils Sassafras and Wintergreen each 10 drops. Add Molasses enough to make 8 fluid ounces.

Sure Cure for Itch.—Take of Quick Lime half a pound, Flowers of Sulphur 1 pound, Water 5 pints. Mix, Boil, Stir by means of a Stick until a union takes place, and Strain. Use as a Bath. A single application will cure.

Valuable Remedy for Bronchitis.—Take of Tannin 3 grains, Extract of Belladonna three-quarters of a grain, Extract of Conium $2\frac{1}{2}$ grains, Infusion of Senna 3 ounces, Fennel Water and Syrup of Marshmallow each $1\frac{1}{2}$ ounces. Mix. Dose, one tablespoonful every two hours.

Genuine Soothing Syrup for Infants, &c.—Take half a pound of Clarified Honey, 1 tablespoonful of Paregoric, 1 teaspoonful of Oil of Aniseed; add enough Water to make a Thick Syrup, and Bottle. For children Teething, administer a teaspoonful occasionally.

Dr. Brookes's Electuary for Rheumatism.—Take Conserve of Orange Peel 2 ounces, Levigated Cinnabar of Antimony half an ounce, Powdered Gum Guaiacum 1 ounce, Powdered Winter's Bark 3 drachms, Syrup of Orange Peel sufficient to form an Electuary. Dose, three drachms morning and evening.

Very Valuable Cure for Piles.—Take 4 ounces of Finely Powdered Loaf Sugar, 2 ounces Flour of Sulphur, and a sufficient quantity of Mucilage of Gum Tragacanth dissolved in Red Rose Water sufficient to mix the whole into a Paste from which to form Lozenges. Having made lozenges in the usual manner, Dry them in a Spent Oven or Before the Fire. Take of these lozenges about one drachm's weight daily.

Hungarian Cure for Consumption.—Take 1 pound of Pure Honey, and let it Boil Gently in a Stew-pan; then stir into it two large sticks of Finely-grated Horse Radish, or as much of them as you possibly can. This mixture must remain in a boiling state about 5 minutes, but Stirred so as not to burn; after which, put it into Small Earthen Pots, or a Jar, closed on top to exclude the air. Dose, two or three tablespoonfuls a day, or more, according to the condition and strength of the patient. If the use of this mixture be persisted in for some time, there are few pulmonary complaints but what will be signally benefitted thereby. In many cases, even where there is confirmed Phthisis Pulmonalis, or Consumption of the Lungs, its efficacy has been found really wonderful. Its good effects are also very marked in all Coughs, Colds, etc.

Admiral Gascoigne's Celebrated Tincture.—A better preparation than the following, for Pains, etc. in the Stomach and Bowels, it is believed does not exist:—Take half an ounce each of Powdered Rhubarb, Myrrh, Cochineal, and Hierapiera, and put them into a Bottle with 1 quart of the Best Double Distilled Anniseed Water. When the mixture has stood for 6 days it will be ready for use. Dose, a small wineglassful.

Easy and Effectual Cure for Wens.—Put any quantity of Salt and Water, together with a piece of Rusty Bacon, into a Pan and Boil them for 4 or 5 minutes. While tolerably hot, Bathe the Entire Surface of the Wen, however large, and continue to do so even after it is cold, Stirring the mixture well, however, before each repetition of the bath. In this manner the wen must be rubbed over not less than ten or twelve times every

twenty-four hours, and, in frequently less than a fortnight a small discharge takes place, without any pain, and Gentle Pressure afterwards soon empties the entire contents, and the wen gradually disappears. In some peculiar cases it may be necessary to continue the treatment set forth for a considerable period, but if it be faithfully persevered in, a final cure will certainly occur.

An Excellent Cure for Pimples.—Take 1 ounce of each, Liver of Sulphur, Roche Alum, and Common Salt. Mix, and add 2 drachms each of Powdered Rock Candy and Spermaceti. Pound and Sift them together. Then put the whole into a Bottle, and add half a pint of Brandy, and 3 ounces of White Lily Water and Pure Spring Water; Shake it for 5 or 10 minutes and it will be fit for use. Bathe the afflicted part with the liquid freely and frequently, after which the pimples will rapidly disappear, and the skin be left clear and smooth. Ten or twelve days use of this lotion, at farthest, are generally sufficient to eradicate the annoyance. Nothing in this preparation can possibly prove prejudicial.

Danish Salve for Wounds, Sores, &c.—Take equal parts of Olive Oil and Yellow Beeswax; Melt them together by means of a Slow Fire, Stirring carefully. When partially cool, Stir in a small quantity of Glycerine. Excellent to soothe and heal every description of Wounds, etc.

Massachusetts Dropsy Cure.—Tincture of Black Snakeroot 1 ounce, Tincture of Myrrh 6 drachms, Laudanum and Tincture of Red Pepper each 1 drachm. Make a Mixture. Dose, thirty or forty drops in a little Water, four times a day.

Dr. Fuller's Celebrated Cough Syrup.—Take 6 ounces of Comfrey Roots, and 12 handfuls of Plantain Leaves. Cut and Beat them together well; Strain out the Juice; then, with an equal weight of Loaf Sugar, Boil it to a Syrup. Dose, one to two tablespoonsful three or four times a day.

The late Sir Robert Peel, who suffered with a dangerous cough at one period of his life, has written of this mixture, which entirely cured him, as "a most noble syrup, that mightily succours those who spit up blood."

Felon Cure.—Equal parts of Gum Camphor, Gum Opium, Castile Soap, and Brown Sugar; add enough Spirits of Turpentine to bring the mass to the consistency of a Paste, which is to be applied fresh every 12 hours to the felon.

Ayer's Cherry Pectoral.—Take 4 grains of Acetate of Morphia, 2 fluid drachms Tincture of Bloodroot, 3 fluid drachms each of Antimonial Wine and Wine of Ipecacuana, and 3 fluid ounces Syrup of Wild Cherry. Mix carefully.

Dr. Fell's Great Cancer Cure.—A piece of Sticking Plaster is put over the cancer, with a circular piece cut out of its centre, a little larger than the cancer, so that the cancer and a small circular rim of healthy skin is exposed. Then a Plaster made of Chloride of Zinc, Bloodroot, and Wheat Flower, is Spread on a Peice of Muslin the size of the circular opening, and applied to the cancer for 24 hours. On removing it, the cancer will be found burned into, as it were, and of the color and hardness of an old shoe sole, while the circular rim of flesh outside of it, will appear white and parboiled. The Wound is now Dressed, and the outside rim soon separates, the cancer comes out in the form of a hard lump, and the place heals up. The plaster kills the cancer, so that it sloughs like dead flesh, and never grows again. Dr. Fell, of London, who discovered this remedy, used it for a number of years with unfailing success, and not a case treated by him, according to the method here given, had to be attended to thereafter.

Vegetable Diarrhœa Specific.—To 2 quarts of Blackberry Juice, add 2 pounds of White Sugar, 2 tablespoonfuls each of Cloves, Allspice, Cinnamon, and Nutmeg. Boil all together 40 minutes; add a wineglassful of Fine Whiskey, Brandy, or Rum. Bottle while Hot (being careful to place the bottles in Warm Water before filling them), Cork Tightly, and Seal. Dose, a wineglassful for an adult; half that quantity for a child. This Cordial can always be used with safety in cases of Looseness of the Bowels, Summer Complaint, Diarrhœa, etc., and is the best when it has been made a few weeks.

Liniment for Burns.—Take equal quantities of Fresh Linseed Oil, Olive Oil, and Lime Water. Shake well together.

Lotion for Weak and Sore Eyes.—Take 1 quart of Rose Water, and add to it 2 teaspoonfuls each of Spirits of Camphor and Laudanum. Mix, and Bottle. To be Shaken and applied to the eyes when necessary. Perfectly harmless.

Brown's Bronchial Troches.—Take half a pound of Pulverized Extract of Licorice, three-quarters of a pound of Pulverized Sugar, 2 ounces each of Pulverized Cubebs and Gum Arabic, and half an ounce of Pulverized Extract of Conium.

Superior Cough Mixture.—Tincture of Bloodroot, 1 ounce, Sulphate of Morphia, $1\frac{1}{2}$ grains, Tincture of Digitalis and Antimonial Wine each half an ounce, Oil of Wintergreen 10 drops. Mix. Administer in doses of from 20 to 40 drops, two or three times a day.

Rheumatic Drops.—Tincture of Black Snakeroot 1 ounce, Iodide of Potassium 2 drachms, Syrup of Ipecac 1 ounce, Spring Water 2 ounces. Mix. Dose, a teaspoonful three or four times a day.

Cure for Warts.—Caustic Potash 2 ounces, Gum Arabic half an ounce, Flour and Water sufficient to make a Stiff Paste of the whole mass. Cut a Hole in a piece of Court Plaster, thro' which let the wart protrude. Apply the paste just given, over the plaster, and let it remain for a few hours.

Squibb's Cholera Mixture, known also as Perry Davis's Pain Killer.—Take of Tincture of Opium, Spirits of Camphor, and Tincture of Capsicum, each 1 fluid ounce, Chloroform 3 fluid drachms, and sufficient Alcohol to make the whole measure 5 fluid ounces. Dose, for persons over 18 years of age, 1 teaspoonful; from 14 to 18 years, a small teaspoonful; from 10 to 14 years, half a teaspoonful; from 6 to 10 years, 30 drops; from 2 to 6 years, 10 to 30 drops: infants from 1 to 10 drops, according to age.

German Cure for Hydrophobia.—The wound is to be bathed as soon as possible with Warm Vinegar and Water, and, when this has dried, a few drops of Muriatic Acid poured upon the wound will destroy the poison of the saliva, and relieve the bitten person from danger. This cure was sent to the *Leip-sic Journal* for publication, by an aged German forester, who gave it as a valuable secret, with which he had saved many men and animals from a horrible death, during more than fifty years that the remedy was in his possession.

Almost Certain Cure for Diphtheria.—Table Salt 2 drachms, Black Pepper, Golden Seal, Nitrate of Potash, Alum, each 1 drachm. Mix and Pulverize them finely, and place the whole into a Teacup, which half fill with Boiling Water; Stir it well, and then fill up with good Vinegar. Use every half hour, one, two, three, or four hours, as recovery progresses. The mode of treatment consists in thoroughly Rubbing this mixture in the Back of the mouth and Throat. The patient may also Swallow a little each time it is applied. Also, apply to the whole of the outside of the Throat, and to the Breast-bone, a Liniment made as follows:—1 ounce each of Spirits of Turpentine, Sweet Oil, and Aqua Ammonia. After this is well rubbed in, keep Flannel to the part.

Salve to Cure Warts and Corns.—Take Extract of Belladonna 2 drachms, Oxide of Manganese $1\frac{1}{2}$ ounces, Potash $2\frac{1}{2}$ pounds. Pulverize the potash in an Iron Kettle, and let it Stand in the Open Air 24 hours; then Mix the whole together. After Shaving the Corn with a Very Sharp Knife, and then apply the Salve for 10 minutes. Then Wash it off and Rub the Corn freely with Sweet Oil. Sells very well.

Certain Cure for Drunkenness.—Take of Sulphate of Iron 5 grains, Magnesia 10 grains, Peppermint Water 11 drs., Spirits of Nutmeg 1 drachm. Administer this twice a day. It acts as a tonic and stimulant, and so partially supplies the place of the accustomed liquor, and prevents that absolute physical and

moral prostration that follows a sudden breaking off from the use of stimulating drinks.

Cure for Sick Headache.—Take Alcoholic Extract of Nux Vomica, using at the commencement Pills containing one-twelfth of a grain, and gradually increased to one-fourth of a grain. These pills taken for two weeks, and then stopped for the same length of time, materially diminish the susceptibility of the brain to attacks of this distressing complaint.

Another Cure for Hpdrophobia.—First dose, 1 oz. of Elecampane Root, Boiled in 1 pint of Milk until it is reduced to half a pint. Second dose, (to be taken two days after the first), 1½ ounces of Elecampane Root Boiled in 1 pint of Milk, in the same manner as the first. Third dose, the same as the second, to be taken two days after it—in all three doses.

The above was sent to the *New York Tribune*, by J. W. Woolstone, of Philadelphia, as a positive cure for that terrible malady, with the declaration that he has known a considerable number of well-defined cases cured by this remedy, beyond a doubt.

Cure for Ringworm.—Washed Sulphur 22 grains, Carbonate of Potash 8 grains, Lard 1 ounce. Mix well. Continue the application of this for some time after the apparent cure, to prevent a return. This is also excellent for Tetters, etc.

Speedy Remedy for Bruised and Discolored Eyes, &c.—Boil a handful of Hyssop Leaves in a little Water until they are quite tender. Then put them up in Linen, and apply Hot to the Eye or other bruised part, Tying the same On Tightly at bed-time, and the part will be entirely well in the morning.

The above receipt is from the Earl of Shaftsbury's very valuable, reliable, and noteworthy collection.

Small Pox Cure.—The treatment of Small Pox in the State Almshouse, in Massachusetts, where the disease had prevailed for several months, was so singularly successful, that a statement of the method pursued is not considered out of place

here. Out of more than sixty cases, but one resulted fatally, and that was in the case of a man who was taken to the house from a neighboring town, in the last stage of the disease. The remedy used with so much success was simply a Tea made from a plant known in *Materia Medica* as *Saracenia Purpurea*, familiarly called Lady's Saddle, or Water Cup, the medicinal virtues of which are in the Root of the plant. The effect of the remedy so remarkably efficient in the above mentioned cases, is to allay the fever and irritation caused by the formation of pustules, which are rapidly dried up, leaving but slight, if any, traces of the malady.

Quick Cure for Earache.—Take a small piece of Cotton Batting, or Cotton Wool; Make a Depression in the Centre with the Finger, and Fill the Indentation with as much Ground Pepper as will rest on a Silver Half Dime. Then Gather it into a Ball and Tie it up; Dip the ball into Sweet Oil, and Insert it into the Ear, Covering the latter with Cotton Wool, using a Bandage to keep it in its place. Almost instant relief will be experienced, and the application is so gentle that an infant will not be injured by it, but be soothed at once.

Captain Kimball's Cholera Medicine.—Take 1 pint of the Best *Pure Brandy*, 2 tablespoonfuls of Black Pepper, 2 tablespoonfuls of Powdered Loaf Sugar, and half an ounce of Gum Camphor. Put this Mixture into a Cup or Pan, Set the Brandy On Fire, Stir it while Burning, and Cook it well. Dose, 1 teaspoonful every few minutes, as warm as the person can take it. If cramped, Rub the person all over hard with the Same Mixture, until the skin looks red.

Capt. Kimball, from whom the foregoing receipt was procured, and who was singularly successful with a large number of cholera cases which he treated, says:—"This remedy, and attentive nursing, are the only secrets I employ. The medicine I keep always ready. I have run the river (*Mississippi*) during every cholera season since '32, and have had as many cases on my boats as any one. I never lost a single case! It will cure the worst attack in 30 minutes. As you say you want my cure for publication in

your forthcoming book, I send it to you willingly, and only ask that you will have it printed exactly as it is written down."

NOTE.—The formula of Capt. Kimball has been strictly copied.
—ED.

Dr. Brown's Celebrated Cholera Mixture.—Take half a pint of the Best French Brandy, 1 ounce of Laudanum, 1 drachm each Oil of Peppermint and Oil of Cinnamon, half a pound of Sugar, or its equivalent. Dissolve all together and use as follows:—For Ordinary Diarrhoea, 1 teaspoonful; for Violent Cramps, 1 tablespoonful. This is the receipt of a very eminent physician, who used it in his practice with great success.

West India Cholera Cure.—Steep 1 quart of Pimento (Allspice) in 1 gallon of Good Brandy or Rum, for at least eight days, Stirring it occasionally. Take a wineglassful of this Infusion, Diluted with a little Warm Water, and Sweetened with Sugar. The daily use of this highly aromatic medicine will be found to be both a remedy and preventative during cholera periods.

To Stop Bleeding.—Take the Fine Dust of Tea, or the Scrapings of the Inside of Tanned Leather, and Bind it Close upon the Wound, and the blood will soon cease to flow. After the flowing has stopped, Laudanum may be advantageously applied to the wound.

Nerve and Bone Liniment.—Take of Distilled Coal Oil, or Shale Oil, and Linseed Oil each 1 pint, Oil Origanum and Oil Hemlock each 2 ounces, Oil Sassafras half an ounce.
Mix. Apply by Rubbing it On the Affected Part Before a Fire.

VALUABLE RECEIPTS FOR MAKING HOUSEHOLD ARTICLES, ETC.

To Refine Beeswax.—The usual method of refining Crude Beeswax is to Melt it after adding about five per cent. of

Water to the quantity of wax. When the mixture becomes perfectly Liquid, and has Boiled for some minutes, Oil of Vitriol, in the proportion of 5 or 6 ounces to every 100 pounds of wax, is Sprinkled over the Whole Surface of the Wax. Great care must be observed during this operation, as the wax froths up, and will run over the sides of the vessel, if not carefully attended to. The wax is then Covered Over and Left to Settle until cool enough to Mould, when it is Gently Skimmed Off with a Hot Ladle, care being taken not to disturb the sediment. When no more can be drawn off, the impurities (principally bees) are Scraped Off from the Under Sides of the Cakes, which are then to be Remelted and Strained Through Canvas. When the wax has a poor color, it may be improved by dissolving a small quantity of Annatto in the melted wax.

To Clean Dirty Marble.—Sal Soda 1 part, Powdered Pumice 1 part, Whiting 2 parts, Oxalic Acid half a part. Mix. Spread the preparation on the marble, and Moisten with sufficient Hot Water to form a Paste. Rub well.

Ganteine for Cleaning Kid Gloves.—Take of White Castile Soap 250 parts, Water 155 parts. Dissolve by Heat, and add, when Cool, Solution of Chlorinated Soda 165 parts, Spirits of Ammonia 10 parts. Rub the whole together until a Smooth Paste is formed. A little of this is to be Rubbed Over the Glove with a Piece of Flannel.

Artificial Honey.—Take of White Sugar 4 pounds, Water $1\frac{1}{2}$ pints, Alum half an ounce. Dissolve by Heat, and, when Nearly Cold, add a teaspoonful of the following Mixture:—Otto of Rose 5 drops, Alcohol 2 ounces.

Frangipanni Powder.—Take of Powdered Orris Root and Ground Lavender Flowers each 3 ounces, Rose Leaves 2 oz., Tonka Beans 1 ounce, Musk, in grains, 2 drachms, Oil of Rose 10 drops. Incorporate these together thoroughly. Used to give to the contents of Bureau Drawers, Furs, Clothing, etc., a Delightful Perfume, and also to Prevent Moths from injuring Woolens.

Liquid Bluing for Clothes.—Take of Soluble Prussian Blue 2 ounces, Oxalic Acid half an ounce, Water 1 gallon. Mix.

Camphor Lavender, for Keeping Moths from Woolen Goods, etc.—Take of Lavender Flowers, Juniper Berries, and Gum Camphor each 1 pound. Mix and Grind.

Beautiful Aniline Blue Ink.—Take of Aniline Blue 15 grains, Alcohol 1 ounce. Dissolve, and add Water 6 ounces. Boil until the odor of the alcohol is dissipated. Then add Powdered Gum Arabic 3 drachms, Dissolved in 4 ounces of Water; finally Strain.

To Remove Stains from Violet Silk.—If the color has been extracted by acid, or fruit juices, Brush the Spots on the Fabric with Tincture of Iodine; then, after a few seconds, Saturate the Place with a Solution of Hyposulphite of Soda, and Dry gradually, when the color will be perfectly restored.

To Drive Fleas and Other Insects from Domestic Animals.—Mix 10 parts Benzine, 5 parts Common Soap, and 85 parts of Water. Generally one or two applications are enough.

Waterproof Dressing for Shoes, &c.—Common Castor Oil 5 ounces, Burgundy Pitch 2 drachms. Melt together, and when Nearly Cold, add half an ounce Spirits of Turpentine. Apply until the Leather is Saturated.

To Clean Gilt Jewelry.—Take half a pint of Boiling Water, oo a little less, and put it into a Clean Oil Flask. To this add 1 ounce of Cyanide of Potassium, Shake the flask and the cyanide will dissolve. When the liquid is cold, add half a fluid ounce of Liquor Ammonia, and 1 fluid ounce of Rectified Alcohol. Shake the mixture together, and it will be ready for use. Gilt articles which have become discolored, may be rendered as bright as when new, by Brushing them with the above mixture. It must be borne in mind, however, that the Cyanide of Potassium is a deadly poison, and should be used with caution.

"Home" Baking Powder.—Bicarbonate of Soda 8 oz., Tartaric Acid 7 ounces, Carbonate of Magnesia 6 ounces, Powdered Starch 6 ounces. Mix, and Rub through a Fine Sieve.

Baking Powders.—No. 1. Bicarbonate of Soda 16 oz., Powdered Tartaric Acid 14 ounces, Powdered Carbonate of Magnesia 6 ounces, Powdered Farina 12 ounces. Mix. Rub through a Sieve.

No. 2. Powdered Tartaric Acid 8 ounces, Powdered Bicarbonate of Soda 9 ounces, Rice Flour 10 ounces. Mix. Use one teaspoonful to every pound of flour.

No. 3. Bicarbonate of Soda 2 pounds, Farina 2 pounds, Powdered Alum $1\frac{1}{2}$ pounds, Carbonate of Magnesia 1 ounce. Dry in Oven separately. Scotch Farina is the best to use.

No. 4. Bicarbonate of Soda 16 ounces, Rice Flour 12 ounces, Dry Tartaric Acid 8 ounces. Rub all well together.

Furniture Polish, for Restoring Old Furniture to its Original Lustre.—Take of Alcohol, Butter Antimony, Spirits Turpentine, each $1\frac{1}{2}$ ounces, Muriatic Acid, half an ounce, Linseed Oil and Vinegar, each half a Pint. Mix. Add the vinegar last. Bottle, and Cork Tightly. Apply thinly with a piece of Fine Sponge.

Mouthwash for Smokers.—Chloride of Lime 6 dr., Water 4 oz. Agitate together one hour, filter, and add Pure Spirit 4 oz., Tincture of Orris Root and Orange Flower Water each 1 oz. When used, Dilute with a little Water.

To Bleach Ivory, Bone, &c.—The Ivory or Bone is first rubbed with Powdered Pumice Stone and Water, and placed while moist under a glass shade, which must be well luted to the stand at the bottom, and then exposed to the sun. The sun's rays without the shade, would be liable to produce fissures or cracks in the ivory or bone. The moist rubbing and exposure may be repeated until the desired whiteness is obtained. A Solution of Sulphuric Acid will also bleach ivory.

Superior Way of Cleaning Silver Plate.—Put the Plate into some Strong Ley, made of Pearl Ashes, wherein half an ounce of Cream of Tartar and the like quantity of Alum have been dissolved; Set it over the Fire, and Boil for five or six minutes, then take out the plate; let it dry either by the Sun, or by the fire, and afterwards Rub it with a Soft Leather, and Finely Sifted Ashes of Burnt Wheat Straw. By this means the plate will look like new, and remain so a long time.

To Preserve Clothes, &c. from Moths.—Dry the Herb called Botries, strew it amongst your clothes, and neither moths nor worms will ever come near them. Cedar Shavings, Gum Camphor wrapped in Paper, and the Clippings of Russia Leather, are also excellent protectives against moths in woolen goods and furs.

To Clean Silk.—Mix well together one-fourth of a pound of Good Soft Soap, half a pint of Proof Spirits, and half a pint of Water. It is to be Spread with a Sponge on Each Side of the Silk, without creasing it. The silk must then be rinsed out two or three times, and Ironed on the Wrong Side.

To Join or Mend Amber.—Smear the Surface of the Pieces with Linseed or Boiled Oil, and then Press them Firmly Together, at the same time Hold them over a Charcoal Fire, or Heat them in any other way, without exposing them to injury.

To Remove Ink Stains from Clothing, &c.—By Moistening Ink Stains with a little Oxalic Acid, Salts of Lemon, or Tartaric Acid they will soon disappear. *Indelible Ink* may be removed by Wetting the Marks made with it with a Solution of Cyanide of Potassium.

To Crystallize Flowers.—Construct, or procure some Baskets made with Pliable Copper Wire into fanciful forms, and Wrap them with Gauze. Into these Tie at the Bottom, Violets, Ferns, Geranium Leaves—in short, any flowers except full blown roses—and sink them into a Solution of Alum, (of 1 pound

to 1 gallon of Warm Water), after the solution has cooled. The colors will then be preserved in their original beauty, and the crystallized alum will hold faster than when from a hot solution. When you have a light covering of crystals that completely covers the articles, remove the basket carefully, and allow it to drip for 12 hours. These baskets make beautiful parlor ornaments, and preserve the freshness of the flowers for a long time.

To Collect the Odors of Flowers.—Roses, and all flowers containing Perfumed Oils, may be made to yield their aromatic properties by Steeping the Petals or Flower Leaves in a Saucer or Flat Dish, and Setting it in the Sun. The petals should be entirely covered with Soft or Rain Water. A sufficient quantity should be allowed for evaporation, and the vessel be left undisturbed a few days. At the end of this time a film will be found floating on the water. This is the essential oil of the flower, and every particle of it is impregnated with the odor peculiar to the flower. It should be taken up carefully and put into tiny vials, which should be kept open until all watery particles are evaporated. A very small quantity of this oil will perfume glove-boxes, drawers, apparel, etc., and will last a long time.

To Make Artificial Musk.—Add to 1 drachm of Oil of Amber, by small proportions at a time, 4 drachms of Nitric Acid (Aqua Fortis), carefully and Constantly Stirring them together with a Glass Rod, and continuing to do so until the whole is converted into a Yellow Resin, which possesses the odor of Musk in great perfection. It must, of course, be kept Closely-corked, like real musk.

To Clean Painted Pictures.—Take the Picture Out of the Frame; Lay a Coarse Towel on it for 10 or 14 days, and keep the towel Constantly Wet until it has drawn out all the filthiness from the picture. Then pass over it some Linseed Oil that has been Seasoned a long time in the Sun, and the colors will appear as brightly as when first laid on.

Proper Way to Clean Oilcloth.—Wash them with Soft Woolen Flannel, and Lukewarm Water used sparingly. As fast as the dirt is removed from the cloth, Wipe it Thoroughly Dry with Another Woolen Cloth. Then Drop a few spoonfuls of Sweet Milk Over the Cleaned Oilcloth, and Rub it Dry a second time, when it will become bright and remain so until dirtied again. If you wish to ruin oilcloths quickly, and have them appear dull and dirty, as well as to have them crack and peel, Clean them with Hot Water and Soap, and a Scrubbing-brush, as many see fit to do, and leave the air to dry the dampness left on the half-wiped oilcloth. It is infallible.

Washing Fluid.—Take one pound Sal Soda and half a pound of Unslacked-Lime; put them into 1 gallon of Water, and Boil twenty minutes; Let it Stand till Cool, then Pour Off, and put it in a Stone Jug. Soak your Dirty Clothes over night, or until Well wet Through; then Wring them Out and Rub on Plenty of Soap; and to one boiler of clothes, well covered with water, add one teacupful of the washing fluid. Boil half an hour briskly, then Wash through One Suds, and Rinse through Two Waters, and your clothes will look elegant.

Easy Method of Keeping Fruit as it Comes from the Tree an Indefinite Time.—Beat Up well together equal quantities of Honey and Clear Water; Pour the Mixture into an Earthen Vessel; put in the Freshly-gathered Fruit, (which should always be Picked by Hand for this purpose,) and Cover it as nearly Airtight as possible. When any of the fruit is taken out, Wash it in Cold Water, Wipe it carefully, and it is fit for use, and scarcely inferior to what it was perhaps a year or longer before. M. Lemery, to whom we are indebted for this very simple process, permitted us to examine and eat Apricots, Peaches, Nectarines, Plums, etc., put up according to the instructions here given. These fruits had not been opened for many months, yet when tested (at Christmas) they were found to be really delicious.

To Reproduce a Beautiful White on Flannel Goods Turned Yellow by Age.—2 pounds and a quarter of White Marseilles Soap is dissolved in 75 pounds of Soft Water, and to the solution is added, under Constant Stirring, 1 ounce of Liquor Ammonia. The goods are soaked in the fluid, and afterward Well Washed with Water. The object may be accomplished quicker, however, by putting the goods for an hour in a Dilute Solution of Bisulphite of Soda, and adding, under Constant Stirring again, some Dilute Hydrochloric Acid, when the vessel has so be Covered and the goods left in it for fifteen minutes longer. They are then Washed in the same way.

A Very Superior Self-fermenting Yeast.—Commence say on Monday morning by putting 2 ounces of the Best Compressed Hops into 9 pints of Cold Water; Boil half an hour; Strain while Hot, and Dissolve 2 ounces of the Finest Table Salt and half a pound of A Sugar in the liquor. When Lukewarm, put 1 pound of Sifted Flour into a Large Basin, make a Hole in the Centre with the Hand, and add the liquor by degrees, Stirring it well with a Spoon, until the whole of the flour is evenly mixed with the liquid. Then Set the Pan with the liquor By the Stove—in winter time day and night. In hot weather this is not requisite. On Wednesday morning boil and mash finely 3 pounds of Good Potatoes, and Mix them with the liquor in like manner as the flour. On Thursday morning there should be a Heavy Dark Scum on the Surface. The yeast must now be Stirred Thoroughly, and Strained through a Sieve or Colander into a gallon Jug, Corked Firmly, Tied Down, and placed in a Cool Cellar. Shake well before using.

N. B.—The liquor should be stirred three or four times a day during the process. A gallon serves a family of six for sixteen bakings. Use no drugs, as soda, etc., nor milk in bread, as that causes it to dry rapidly. It is best to add a teaspoonful of Salt when you bake, and that should be Dissolved in a little Warm Water and mixed with the yeast in setting the sponge over night. When the bread is once kneaded and put into the pans to rise, it

may be left for hours with safety from souring—it will only be too porous.

The above yeast is of English origin; it is self-rising, improves with keeping, and, with its use, it is impossible to make sour or heavy bread, unless the flour is bad and sour, or the yeast has been left uncorked. It will keep for weeks in summer or winter.

To Keep Worms from Fruit.—A small quantity of Sassafras Bark placed among any kind of Dried Fruit will keep it free from worms for years.

To Render Lard, Tallow, and Other Animal Fats Inodorous.—Mix $14\frac{1}{2}$ pounds Freshly Melted Fat with 5 drachms of Table Salt and 15 grains of Powdered Alum; Heat until a Scum Forms on the Surface. This scum is then to be separated, and when the fat has cooled, it is Thoroughly Washed with Water to remove the salt, and then Heated Gently until the water is evaporated.

To Revive Carpets by Sweeping.—Strew Fresh-cut Grass Over the Carpet, and let it remain a few minutes before sweeping, which should be done with a Tolerably Stiff Broom. This is much more preferable than the use of tea leaves, which frequently leave stains. Fresh Grass prevents dust from arising, and imparts to the carpet a peculiarly bright, fresh appearance.

To Restore Yellow Ivory to its Original White Color.—There are two receipts in use for this purpose. One is to Place the Ivory for an hour in a Saturated Solution of Alum; then Rub it with a Woolen Cloth, Wrap it in Linen, and let it Dry. According to the writer's experience, the following method is preferable:—A Thin Lime-paste is prepared in a Pot, and Heated over a Stove; the Ivory is placed in this and left until white, when it is taken out, Dried, and Polished.

Shaving Cream.—Take of White Soap 3 ounces, Proof Spirits 8 ounces, Water 4 ounces, Carbonate of Potassa 1 drachm, Oil of Lemon 10 drops. Dissolve all the other ingredients together Without Heat; then add the potassa and oil of lemon,

To Make Copying Paper.—Mix Inodorous Lard and Black Lead into a Stiff Paste ; Rub it Upon Writing Paper with Flannel, and Wipe off the Superfluous Quantity with a Soft Rag. The sheets so prepared Alternated with Writing Paper and written upon with a Stiff Pen or Pencil, produce several copies of a letter at one time.

To Make Bronze Powders.—BEAUTIFUL RED.—Mix together Sulphate of Copper 100 parts, Carbonate of Soda 60 parts. Heat until they unite in one homogenous mass, which, when Cool, should be Pulverized, and 15 parts of Copper Filings added. Mix well, and bring the whole to a White Heat, at which temperature it is to remain for 20 minutes. Then Cool and Powder again, Wash, and Dry.

PURE GOLD BRONZE POWDER.—Grind Gold Leaf with Pure Honey until the leaves are broken up and minutely divided. Then Remove the mixture from the Stone with a Spatula, and Stir it Into a Basin of Clear Water, where the honey will be dissolved and the gold disentangled. Leave the basin undisturbed until the gold precipitates. Then Pour Off the water carefully, and replace it with Fresh, repeating the process until the honey is entirely washed away, after which Collect the gold on Filtering Pans and Dry for use.

GOLD COLORED BRONZE.—Verdigris 8 ounces, Tutty Powder 4 ounces, Borax and Nitre each 2 ounces, Bichloride of Mercury one-fourth of an ounce. Make them into a Paste with Oil, and Fuse together. This is used extensively by Japanners, etc.

A CHEAP GOLD COLORED BRONZE.—Melt one pound of Tin in a Crucible, and Pour on it half a pound of Pure Mercury. As soon as the mixture becomes solid, Grind it into Fine Powder with 7 ounces of Sulphur and half a pound of Sal Ammoniac.

PURE SILVER BRONZE POWDER.—This is made by the same process as that given for pure gold bronze powder, substituting Pure Silver Leaf for gold leaf.

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